Making information on CSR scores salient: A randomised field experiment.[*]

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– This draft: 15 January 2019 –

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1 Introduction

A large and consolidated body of theoretical and empirical research in the behavioural literature postulates or documents the existence of 'pure or impure' other-regarding preferences. Most of this literature relies on laboratory experiments which show that individuals, beyond their self-interested defined desire to increase their monetary endowments and consumption levels, are also driven, among others, by other-regarding preferences (Cox, 2004), positive and negative reciprocity (Rabin, 1993), social-welfare preferences (Charness and Rabin, 2002), inequity aversion (Fehr and Schmidt, 1999; Bolton and Ockenfels, 2000), and different forms of pure and impure (warm glow) altruism (Andreoni, 1989 and 1990), which could arise from a mix of unconditional and conditional drivers including social approval (Konow, 2009).

In parallel, several theoretical and empirical contributions have investigated the novel and growing phenomenon of corporate social responsibility (CSR).[1] Most of these empirical studies focus

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[1] Two institutional definitions of CSR come from the European Commission and the World Bank. According to the first (EC, 2001), companies are socially responsible when they "integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis". The World Bank agrees with the definition of the World Business Council for Sustainable Development (WBCSD, 2002), according to which CSR is "the commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve quality of life, in ways that are both good for business and good for development". For literature reviews on CSR see, among others, Kitzmueller and Shimshack (2012), Hoi, Wu and Zhang (2013) and Dhaliwal et al. (2012).

on the relationship between CSR and corporate performance, while theoretical research investigates the impact of CSR on the traditional welfare goals of standard theoretical models (Baron, 2003; Besley and Ghatak, 2007; Bénabou and Tirole, 2010). This literature shows that, in a framework of asymmetric information, signalling a CSR stance has a positive effect on sales not only because of (unconditional or social context dependent) other-regarding preferences, but also because CSR is perceived as a signal of product quality (see among others, Siegel and Vitaliano, 2007; and Elfenbein and McManus, 2010).

The novelty of the present paper lies in the establishment of a nexus between behavioural economics and CSR, by means of a randomised field experiment in which a 'school report-like' poster scorecard with detailed scores in different CSR subjects for the ten largest world food companies is located at the entrance of selected supermarkets. This means we cannot interpret our findings just in terms of a simple brand salience effect. Instead, we are able to test the impact of CSR information on consumer choices thereby reducing problems of observational equivalence. The information provided to customers when they enter the supermarkets is retrieved from the international Oxfam Behind the Brands campaign. The campaign provides a scorecard with summary scores on corporate social and environmental responsibility on seven CSR domains (Transparency, Women, Workers, Farmers, Land, Water, and Climate), for each of the ten leading world food and beverage corporations. The scores are created by aggregating a large number of indicators with a methodology described in detail in the campaign website (see section 2 below).[2] For each company, the sum of the seven CSR scores gives a summary measure that determines its ranking. The scores can be found online on the campaign website where, by clicking on icons of the typical brands of the ten companies, web surfers can access their detailed scores and are invited to send a message of approval/disapproval to the companies.

The originality of our paper, compared to the few similar valuable field experiment contributions that focus on the effects of a *single poster* for a *single brand* (Hainmueller, Hiscox and Sequeira 2015), is that signal comprises a *comparative ranking* which enables us to formulate more complex hypotheses on the different effects on top and bottom ranked companies. We have no evidence or information of a previous experiment of this kind. There are two main reasons why our experiment is original and, to our knowledge, has never been tried before. First, supermarket chains tend to be very concerned that a focus on brands different from their own may damage the in-house brands because of an invisibility effect. Second, the business relationships supermarkets may have with low ranked brands could suffer. Because of these concerns, we were only allowed to work in four shops.

The Behind the Brands campaign was designed by Oxfam as a long-term initiative. The scorecard has been updated five times since the start of the experiment in February 2013 with the last update in April 2016. The impact of the campaign at world level is characterised by two significant features. First, 31 major investment funds, accounting for nearly 1.5 trillion dollars of assets under management, have joined Oxfam's call on the world's largest food corporations to do more to reduce social and environmental risks in their supply chains. Second, thanks to the 700,000 actions undertaken by supporters of the campaign in the three years up to 2016, a number of corporations have entered a process of engagement directly with Oxfam.

   The contribution of this paper is that it enriches and extends a recent research on the impact of reputational risk on corporate performance. In addition, the focus of previous papers in this

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[2]Information on the campaign as well as details on its methodology are available at http://www.behindthebrands.org/~/media/Download-files/BtB%20Methodology%20document_final_Sept%202014.ashx.

field has not been on randomised experiments. Kölbel and Busch (2013) document how negative media attention (proxied by the RepRisk index) tends to worsen credit risk. Minor and Morgan (2011) show that the positive reputation of high CSR firms helps them absorb the negative consequences of product recalls. Deng, Kang and Low (2013) find that the negative effect of stakeholder conflicts in mergers is reduced by high CSR. In most of this literature, CSR is mainly viewed within the governance domain, with its positive/negative effects working through a channel of trust. Hence, the reaction of the market to low corporate social responsibility is not indicative of other-regarding concerns but rather reflects the fear that low CSR may lead to poor corporate conduct in the future, thus generating economic losses to both consumers and investors. A broader approach used by Brouhle and Khanna (2012) considers the link between the awareness of consumers about the quality of products and the level of quality subsequently produced by firms. The authors find that consumer awareness may encourage firms to provide high-quality products.

Our paper is the first one to look at those aspects of CSR ranking which are directly concerned with environmental and social responsibility along the product chain. As such, these aspects are less likely to be related to final consumers self-regarding concerns, even though they may still be considered by consumers as proxies of overall corporate quality. In addition to this, the field experiment design helps to solve the causality problems often encountered in the above mentioned literature. At the same time, our field experiment does not suffer from the limitations to external validity that are typical of laboratory experiments. Last but not least, the focus on final consumers is consistent with the growing awareness that consumers' decisions may be very relevant for orienting corporate behaviour, as shown by global surveys. In 2013 The Eurobarometer asked representative samples of citizens from the 27 EU countries "who should take the leading role in influencing companies' action" (Eurobarometer, 2013). The most frequently selected answer (49 percent) was "citizens themselves through the purchasing decisions they make", followed by "management of companies through the decision they make about what the company does" (40 percent), public authorities through policies and regulations (36 percent), trade unions (28 percent), investors (22 percent), and NGOs (12 percent). In this perspective it is of foremost importance to understand how consumers react to information on CRS as we do in our field experiment.

A closer reference to our work is represented by a narrower set of papers which test the effect of green advertising in field experiments. Among them, Hainmueller, Hiscox and Sequeira (2015) show that the two most popular coffee brands in their treated supermarkets experience an increase in sales by almost 10 percent, under a treatment represented by a Fair Trade label compared to a generic placebo label. In a second label-plus-price experiment they find that sales of the higher price coffee brand are not significantly different after an 8 percent price increase, while demand for the lower priced brand is more elastic since the price increase is associated with a 30 percent decline in sales. In another field experiment aimed at testing the willingness to pay in online auctions, Hiscox, Broukhim and Litwin (2011) find that shoppers on eBay paid a 23 percent premium for Fair Trade labelled coffee. Regarding environmentally responsible goods, Vlaeminck, Jiang and Vranken (2014) show that an easily-interpretable label is associated with an increase in the market shares of eco-friendly products. The results from these field experiments are consistent with the literature showing that reference to social norms has strong effects on pro-social behaviour (Griskevicius et al., 2006; Goldstein and Cialdini, 2008). What sets our contribution here apart is that we are the first to test the impact of the Oxfam Behind the Brands type of campaign and, more generally, to analyse an articulated set of comparative scores on CSR of top world companies.

Thus, we formulate three distinct research hypotheses. First, we test whether the impact of the Behind the Brands scores is significant and consistent with a company's rank. Second, we test whether the marginal increase in the total score is significant per se. Third, we test the effect of the treatment on non-ranked companies.

Our econometric findings show that the null of insignificance of the poster treatment is violated under three main respects. First, the scorecard poster treatment tends to have positive and significant effects on the market shares of the top ranked company, and negative and significant effects on those of bottom ranked companies with only one exception. Second, the marginal increase in the total Behind the Brands score has a positive and significant effect on the market shares of ranked companies. Third, the treatment is not neutral on the main non-ranked companies since the latter experience a negative and significant effect on their market shares.

Our results may have important policy implications. If public information on CSR, that is visibly available in shops, has a significant effect on consumer choices, then even more comprehensive information on the social and environmental responsibility of products may contribute to the achievement of social and environmental goals set by policymakers, alongside the more traditional tools of regulation and taxes. It should be noted however that the impact of the same treatment realised on a wider scale would have general equilibrium effects. Our small scale and time limited experiment is not able to evaluate the effect of information overload and medium term time dynamics of a larger scale policy that is persistent over time. In this sense our results signal the need for further research to extend and generalize findings of the effect of CSR ranking on corporate sales.

2   The Oxfam Behind the Brands   campaign

The Oxfam Behind the Brands campaign focuses on the sourcing policies of the ten largest food and beverage companies in the world (Associated British Foods (ABF), Coca-Cola, Danone, General Mills, Kellogg, Mars, Mondelez, Nestlé, PepsiCo, and Unilever) according to the Forbes 2000 annual ranking. Aggregate yearly revenues of these companies amounted) to around \$450 billion at the beginning of the campaign in 2013, the equivalent of the combined GDP of all low-income countries in the same year.

The campaign consists of collecting information and creating aggregate scores from a large set of indicators in the following seven domains:[3]

1. Transparency at a corporate level;

2. Women farm workers and small-scale producers in the supply chain;

3. Workers on farms in the supply chain;

4. Farmers (small-scale) growing the commodities;

5. Land, both rights and access to land and sustainable use of it;

6. Water, both rights and access to water resources and sustainable use of it;

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[3]Descriptions of domains are retrieved from the campaign website www.behindthebrands.org.

7. <u>Climate</u>, both relating to reducing greenhouse gas emissions and helping farmers adapt to climate change.

Indicators are based on information retrieved from publicly available documents. For six of the seven domains (transparency excluded) they fall into the following four categories:

1. <u>Awareness</u>: Does the company demonstrate general awareness of key issues relating to that theme and does it conduct projects to understand and address these key issues?

2. <u>Knowledge</u>: Does the company demonstrate it measures, assesses and reports key issues and facts specifically in its supply chains that relate to that theme?

3. <u>Commitments</u>: Does the company commit to addressing the key issues relating to that theme in its supply chains?

4. <u>Supply chain management</u>: Does the company require its suppliers to meet relevant standards related to that theme?

The four categories have been defined to measure increasing engagement in social and environmental issues, from general awareness of a problem to the monitoring and enforcement of the supply chain's conformity to high social and environmental standards.

Information used to create indicators in the first (Transparency) domain is different from the above since it has a broader focus and involves disclosure on issues that may simultaneously involve several of the remaining six domains.

An important aspect of the scores we use for our field experiment is that they focus on agricultural sourcing policies. That is, the scores represent a specific 'downstream' and limited domain of CSR that is therefore far from the self-interest or utility of consumers in relation to the final product. Moreover, the scores do not consider those 'downstream' domains of corporate responsibility such as corporate philanthropy, which can create benefits for workers or local communities in market places as well as encouraging environmental sustainability in the country of the final consumer. It is well-documented that concern and sensitivity for the wellbeing of foreigners and distant people decline significantly during negative business cycles as the economy tends to be considered a fixed cake (Becchetti, Castriota and Rossetti, 2009). Our analysis becomes even more relevant precisely because it is conducted at the end of a six-year recession which saw a fall of about 14 percent in average Italian household income (OECD, 2015).

In the next sections we describe the design of our field experiment, present and discuss our descriptive and econometric findings, and perform additional robustness checks.

3 Experiment design

The experiment involves four stores of the biggest Italian grocery chain, Coop. The stores are located in the Tuscan towns of Firenze, Lucca, Pisa, and Siena.

We apply a two-group, two-phase crossover design (Jones and Kenward, 2003) and randomly assign each store to a group corresponding to the treatment-control or the control-treatment experimental sequences. The first phase started on 30th May, 2016 and was in place for 4 weeks, after which stores started a second 4-week phase that ended on 24th July, 2016. The experiment lasted 8 weeks in total. The two groups of stores share similar characteristics in terms of size, location, sales per square meter as well as a number of demographic variables such as average age, income, education level and percentage of foreigners living in each of the neighbourhoods (Table A.1 in Appendix A).

During the first phase, the control period, there was no intervention regarding CSR, and neither the store employees nor the customers were aware that we were registering sales for the purposes of the experiment. In the second phase, the treatment period, we displayed a large poster (2mx1m) reporting the Oxfam ranking of the world's ten largest food companies according to their performance in seven CSR domains. The poster was placed at the main entrance of each store and occupied part of the doorway so that it was visible to every customer entering that store. The poster was designed to hold a pocket containing fliers that reproduced the main poster in a smaller size, as well as providing full details of the Oxfam campaign and the associated website (Figure 2). Each store carried 1,000 fliers, of which less than 100 fliers were left at the end of the experiment. During the treatment phase, workers of each store did not know the details of the project and were instructed not to give any explanation to customers who would ask for information about the poster.

4 Econometric analysis

4.1 Descriptive statistics

To provide a summary view of our descriptive findings we report the weekly sales in the stores selected for our experiment at brand level. It is important to note that we use three levels: product, brand, company. For example, Coccolino is a brand of Unilever and Buitoni is one of the brands belonging to Nestlé). A single brand may have different products (*i.e.* Buitoni produces different types of biscuits and pasta). In Table 1 we show the brands for each company and the sales volume for each brand over the entire period of the experiment. Sales vary according to the number of different products sold for each brand for a given company (*e.g.*, different types of Algida ice-creams under the Algida brand belonging to the Unilever company) and the availability of each product in the given supermarket place. As expected, Unilever and Nestlé have the highest number of brands. Other companies have much fewer brands sold in the shops where the experiment is held (Kellogg's has two brands and ABF has one brand only, that is, Twinings tea). There are only nine companies involved in our Behind the Brands experiment and not ten because Coop supermarkets, where the experiment takes place, do not carry products for General Mills, one of the ranked companies in the Oxfam list.

Table 2 displays average market shares at brand level for each company and total sales at company level in the treatment and control periods. From this table we see that the top ranked company (Unilever) experiences a growth in sales of around 10 percent with the treatment and a similar 10 percent increase in average market share at company level. At the same time, total sales of companies ranked at the bottom tend to fall. In order to test whether these descriptive differences are significant we need to control for price effects, company/store specific fixed effects

and week effects. We do this in the econometric analysis presented in the section that follows.

4.2 Econometric specification and hypothesis testing

We test econometrically the effect of the publication of scores of the Behind the Brands campaign on the scorecard poster treatment by using the following specification

$$\delta_{p,c,s,t} = a_0 + \sum_{c \in BtB} a_{1c} Treat * Company_c$$

$$+ \sum_{c \in NR} a_{2c} Treat * Company_c + a_3 Price_{p,c,s,t} + \xi_t + \xi_{cs} + \varepsilon_{p,c,s,t} \quad (1)$$

where $\delta_{p,c,s,t}$ measures the market share of product p of company c at store s during week t, $Company_c$ is a (0/1) dummy for the c-th company ranked in the Behind the Brands campaign if $c \in BtB$ and non-ranked if $c \in NR$, where BtB is the set of the ten companies ranked in the Behind the Brands campaign and NR is the set of the six largest companies with products sold in the experiment supermarket branches that are not ranked in the Behind the Brands campaign; $Treat$ is a dummy taking value one in the treatment period and zero otherwise; $Price_{p,c,s,t}$ is the price for each product p of company c at store s during week t, ξ_t and ξ_{is} are (0/1) dummies picking up the week t and the cs-th company/store fixed effect, respectively. Among the controls, price levels capture the influence of brand products unit prices on brand product market shares. Week effects capture common factors affecting sales dynamics such as average weather conditions of the specific week (*i.e.*, higher market shares of ice-creams if the temperature is higher) and any news that may affect consumers' behaviour. Company/store fixed effects capture idiosyncratic time invariant components related to company-related consumption habits of the given shops and product characteristics. We use bootstrapped standard errors, a typical strategy adopted when the number of clusters is small [4]. In addition, we replicate all our findings with multilevel mixed-effects estimates as is standard in cluster-specific information (Bauer and Sterba, 2011). In our data, stores represent level 1 and the weekly market shares of products represent level 2.

Based on (1) our first null hypothesis is

$$H_{01}: \sum_{c \in BtB} a_{1c} = 0.$$

The null implies the joint irrelevance of the treatment on treated companies. Its rejection implies that the treatment has significant effects on the average product market shares of the ranked companies.

Our second null hypothesis is

$$H_{02}: \sum_{c \, NR} a_{2c} = 0.$$

The null implies the joint irrelevance of the treatment on non-treated companies having products sold in the shops where the experiment takes place. Its rejection implies that the treatment has

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[4]We follow the Davidson and MacKinnon (2000) A-procedure to calculate the optimal number of bootstrap replications, that is, we rely on their statistics calculating the optimal number of replications that makes the error between predicted and actual p-value small enough to be acceptable.

significant effects on the average product market shares of non-ranked companies.

An alternative specification used to test for the marginal effect of the total Behind the Brands score is

$$\delta_{p,i,j,k} = \beta_0 + \beta_1 TotalScore_c + \beta_2 Treat * TotalScore_c + \xi_k + \xi_b + \varepsilon_{r,i,j,k} \tag{2}$$

where $TotalScore_c$ is the total score for company c ranked in the Behind the Brands campaign (that is, for each $c \in BtB$) and the other regressors are defined as in (1). The analysis here is limited to products of companies ranked in the Behind the Brands campaign.

Based on (2), we test the following null hypothesis

$$H_{03} : \beta_2 = 0.$$

The null implies the irrelevance of the total score, while its rejection on the positive side implies that a unit increase in the Behind the Brands total score has a positive and significant effect on the average product market shares of the ranked companies.

4.3 Econometric findings

Our findings on the impact of CSR treatment in a sample including observations of weekly sales of all products sold in the treated supermarkets are presented in Table 3. In the first specification we test the treatment effect on the ten companies covered by the Behind the Brands Oxfam's campaign (column 1), while in a second specification (column 2) we use the fully augmented specification in (1) and also introduce dummies capturing the effect of the treatment on the most relevant selected companies not included in the ranking (Coop, Barilla, Lavazza, Mukki, Sammontana and Ferrero). A first important finding is that the ranking matters since six out of the nine company dummies interacted with the treatment dummy are significant (the F–test on the joint significance of the $Treat * BtBCompany$ dummies is F(9 ; 156,493) = 741.60, Prob > F = 0.000, indicating rejection of the null hypothesis H_{01} in section 4.2) in the first specification controlling for prices, week effects and company/store fixed effects. The result remains significant when we introduce the non-ranked company treatment-interacted dummies (Non-BtB company variables in column 2). Columns 3 and 4 display the multilevel estimates and confirm the results for each company as well as for joint significance.

In addition to this general result we have more specific findings. First, our treatment produces a 6 percent increase in the market share of the top ranked brand (Unilever). What is interesting as well is that the companies ranked second and third (Nestlé and Coca-Cola) experience insignificant changes in their market shares, while the impact on the 4th and 5th brands (Kellogg's and Mars) becomes positive again. A tentative interpretation for these combined findings is the relatively more negative reputation of Nestlé and Coca-Cola at the international level and in Italy among those types of consumers who regularly shop at Coop supermarkets and who are in general more critical toward multinational companies. This negative reputation is likely to undermine and to invalidate the good news of their high rank in the Behind the Brands campaign.[5] Since we are unable to interact treatment with a sound variable measuring pre-Oxfam public

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[5]An indication of the relatively more negative perception of Coca Cola and Nestlé in the general public may be found in the existence of a specific Wikipedia item related to such criticism. On the item "criticism of Coca-

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image (given the difficulty of creating such variable and the small number of varying observations it should have), the above mentioned interpretation is clearly an *ex post* interpretation and not a finding that comes out of an *ex ante* designed empirical test. Beyond the heterogeneity of impact described above, a rank in the top five of the Behind the Brands campaign has an overall positive and significant impact since the null of no impact is rejected on the positive side ($F(5; 156,493) = 674.64$, Prob > F = 0.000).

A third important finding is that our treatment produces negative effects on companies ranked between the 6th and the 9th (last) position (PepsiCo, Mondelez, and Danone)[6] with the exception of ABF where the impact is surprisingly positive, even though not always strongly significant. We argue that what may matter here is that, as shown in Table 1, ABF has only one brand on our supermarket shelves, Twinings tea, and this brand is not easily identifiable with ABF. Furthermore, Twinings has a strong ethical reputation among Italian and world consumers, made salient by our experiment that induces consumers to focus on corporate social and environmental responsibility.[7] In spite of this exception, a ranking in the last four places of the Behind the Brands campaign produces a negative and significant effect since the null hypothesis of no impact is rejected on the negative side ($F(4; 156,493) = 84.46$, Prob > F = 0.000).

Findings from the second specification (Table 3, column 2) confirm all the above results but provide additional evidence of a negative (even though small in magnitude) effect on companies not covered by the Behind the Brands campaign when we select the first six non-ranked companies in terms of total sales in the selected supermarkets (Coop, Barilla, Lavazza, Sammontana, Mukki and Ferrero) (the joint significance test is $F(6; 156,493) = 1786.44$, Prob > F = 0.000). This effect is stronger with bootstrapped than with multilevel estimates. Hence our second null hypothesis (H_{02}) on the irrelevance of the experiment for non-treated brands is rejected in the direction of a negative effect. This implies that the 'invisibility effect' generated by not being among the ranked companies works negatively. A likely interpretation is that the positive effect on top ranked companies can erode market shares of the excluded brands. Another rationale for the invisibility effect is that consumers reading the scoreboard may have been under the impression that the ranking is run on all companies and not just on the ten world largest food multinationals (in spite of our clarification in the attached fliers). If this is the case, then the ranking would also signal to consumers a low CSR quality of non-ranked companies.

Cola" it is possible to find information about most of the negative corporate responsibility issues related to the company (https://en.wikipedia.org/wiki/Criticism_of_Coca-Cola). The Nestlé case is even more clear cut since the company suffered and is still suffering a word boycott campaign related to the aggressive marketing of breast milk substitutes, particularly in less economically developed countries (LEDCs), largely among the poor. The Wikipedia item "boycott Nestlé" dedicated to it can be retrieved at https://en.wikipedia.org/wiki/Nestl%C3%A9_boycott. Even though Wikipedia pages are not scientific proofs, the two explicitly negative Wikipedia pages related to the two companies are a clear-cut indication of their relatively stronger negative perception by the general public. And perception is what matters in our experiment. To compare this evidence with what concerns the top ranked Behind the Brands company it is impossible to find a Wikipedia voice on Unilever boycott or criticism of Unilever. Criticism on Coca-Cola and Nestlé is therefore expected to be widespread among the most socially aware consumers.

[6]General Mills, Mondelez and Danone are the only three companies having at least one score of two (the minimum assigned by the campaign).

[7]The Guardian discusses the disappointing CSR performance of ABF arguing that the company "does a disservice to the group because, in reality, it has some highly respected ethical enterprises among its portfolio. Twinings for instance has forged a solid reputation as a founder member of the Ethical Tea Partnership." (https://www.theguardian.com/sustainable-business/associated-british-foods-transparent-nestle-coca-cola) Again this is an ex-post interpretation of our findings. This article clearly shows that the reputation of Twinings tea is different from that of ABF. Hence, it is reasonable to expect that Coop consumers do not easily reconnect the ABF score to the unique ABF brand (Twinings tea) sold in Coop supermarket and focus instead of the ethical strength of the latter that becomes more salient with the experiment.

In interpreting our findings we must consider that rejection of the null is particularly remarkable given two offsetting factors that should go in the opposite direction. On the one hand, the shops where we perform our experiment are Coop supermarkets and therefore they are usually attended by a selected and socially motivated sample of consumers, most of whom are Coop shareholders. We therefore expect that these consumers may already be aware of some of the social and environmental concerns raised by the campaign and incorporate them in their pre-treatment choices. On the other hand the experiment is run in 2016, that is, after a severe recessionary spell that led Italian households to lose on average 14 percent of their per capita income after the 2008 financial crisis (OECD, 2015). We can reasonably expect that the crisis may have made Italian consumers less sensitive to social and environmental issues and relatively more price sensitive than during positive business cycle periods.

The information obtained with our treatment is much richer than just a ranking among the ten biggest world food companies, since we also have detailed 1–10 scale scores in the seven different domains covered by the campaign (Transparency, Women, Workers, Farmers, Land, Water, and Climate). We therefore test whether the absolute score values matter in a different specification where the company dummies disappear and we simply introduce a baseline total score variable ($TotalScore$) plus a total score variable interacted with the treatment dummy ($Treat * TotalScore$) (see specification (2) in section 4.2). Note that in this case the number of observations is far lower since we exclude from the analysis the products of all non-ranked brands.

Our findings show that both variables (baseline and treatment interacted total score) are significant, which leads to the rejection of our third null hypothesis (H_{03}) (Table 4). The significance of the baseline total score variable ($TotalScore$) may have three interpretations: i) it simply reflects that, for reasons unrelated to their CSR reputation, companies at the top of the ranking have higher market shares; ii) it captures a reverse causality effect between CSR and performance where top performers (assuming that market shares in our selected supermarkets coincide with aggregate world market shares) have more resources to dedicate to CSR;[8] iii) it proves a direct causality effect where CSR has a positive impact on performance. An investigation of which of the three possible interpretations applies is, however, beyond the scope of the present research, which focuses only on the effect of the treatment. The significance of the total score variable interacted with the treatment dummy shows that the treatment (informing customers about the Behind the Brands scores) has positive and significant effects on sales. This finding confirms previous results on hypothesis one, by showing that drawing consumers' attention to the Behind the Brands scores produces effects on sales in the expected direction.

5 Robustness checks

As a first robustness check we consider that a limit of the crossover design is that shops with a two-period treatment-control sequence may not be considered as 'pure controls' if the first period treatment effect has post treatment (second period) consequences. We therefore limit our estimate to the first two weeks hence eliminating this possibility (Table A.2). In a second check we add three pure control stores, that is stores where the treatment has never been performed (Table A.3). In both cases our main findings are confirmed. As a further robustness check we consider that it may be observed that prices should be excluded from the set of control variables.

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[8] Empirical evidence on a causality nexus going from corporate performance to CSR is provided by Hong, Kubik and Scheinkman (2012).

We therefore perform an additional estimate excluding them from the set of regressors and find that our results remain robust (Table A.4).

Another possible objection to our analysis is that the Behind the Brands campaign is focused on food, while the ten ranked companies also produce non-food products. We therefore disentangle the treatment effects on food and non-food products in an augmented specification (Table A.5). Our findings show that the treatment effect is concentrated on food products. Consumers thus correctly link their behaviour to the specific target of the Behind the Brands campaign, *i.e.* the international food product chain, while the reputation effects on non-food products of the same companies are not significant.

Our four-week treatment phase may have a specific time pattern depending on the priming of the stimulus and on heterogeneity in the frequency of purchases related to each different product category. For this reason we repeat our estimates by: i) separately considering the first to the fourth week treatment effects (Table A.6); ii) estimating our specification at product category level (Table A.7) and iii) at brand level (Table A.8). Findings from week-specific additional estimates reveal that our main results are quite robust and do not exhibit particular time patterns during the treatment period. From our brand level estimates we see that the effect on the top ranked company (Unilever) is uniform across all brands. The same occurs for the negative effect on the bottom ranked company (Danone). Hence in this case brand loyalty does not seem to reduce the treatment effect. A special case is Mondelez where the negative effect is concentrated on the Milka brand. Another interesting finding relates to PepsiCo. There are four PepsiCo brands sold in the shops but the negative effect is concentrated on the brand with the same name as the company (Pepsi), while it is absent on other brands where perception of the relationship between brand and company is weaker. (PepsiCo's Gatorade brand was unaffected by the treatment).

The product category level analysis shows that most of the significant effects are concentrated in the pastry category. A tentative interpretation of this finding is that competition among brands in terms of reputation tends to be stronger for these products since both top and bottom ranked companies (and also non-ranked companies) present items in this category. This result contrasts with dairy products that are sold by Danone, the bottom ranked company but not by Unilever, the top ranked company. In this case the absence of negative significance on Danone sales (in spite of the general negative effect of the treatment on Danone) can presumably be due to lack of substitution opportunities in the top ranked company.

As a further check on the role of comparative ranking in our findings, we perform a more parsimonious estimate using only two treatment variables for ranking above/below median and find that they are both strongly significant in the expected direction (Table A.9).

We have argued that rejection of the null of H_{01} (and H_{03}) may be related to other-regarding preferences. We however considered that two of the Behind the Brands domains (Climate and Transparency) may in principle also affect the utility of final consumers. We therefore replicate the estimates of Table 4 with total scores computed after excluding these two domains. Note that the ranking of the ten companies is slightly modified after this change (Table A.10). Results from the specification using the modified total score do not change significantly and the treatment interacted total score variable remains positive and significant (Table A.11).

We further examine whether the treatment effect persists after the poster scorecard is removed.[9] We therefore introduce in specification (2) a post-treatment dummy equal to one in the last months of our experiment for the two supermarkets assigned to the treatment–control phase order. We find that the total score treatment effect remains significant and that the post-treatment effect is positive and significant as well, even though smaller in magnitude (Table A.12).

In a final robustness check we show how the significance of our findings changes when clustering standard errors at different levels. Since the typical (weather, advertising campaign) shocks affecting sales are at product class level we consider our store/brand/week/product class level as a good alternative for delimiting within and between group variance. Our main results are unchanged (see Appendix B on this point).

6   Conclusions

By choosing to pursue corporate social and environmental responsibility, companies may contribute to the achievement of social and environmental goals. They may, however, be reluctant to follow this course of action due to the high costs and limited benefits of this choice. Provision of proper information on their responsibility scores could help to change this negative cost-benefit balance if it influences consumers' choices in the right direction. In other words, companies may be persuaded to take on greater CSR if it means sales are higher for more responsible companies. In our paper we assess whether this is the case with a randomised field experiment where we test the salience of the Oxfam Behind the Brands campaign when this information is made available to consumers with a 'school report-like' scorecard poster showing comparative CSR scores of the ten largest world food companies at the entrance of a selected number of supermarkets.

The findings of our experiment show that the null hypothesis of the joint insignificance of the poster effect on treated supermarket sales of the ranked companies is rejected. More specifically, the top ranked company experiences a six percent increase in its market share. Moreover, several other brands experience relative changes in market share depending on their rank. Those ranked at the bottom register, in general, a negative and significant effect on market share. We also show that an increase in the total score produces a positive and significant impact on market shares. The effect of the treatment is concentrated on food products, consistent with the target area of the Oxfam campaign. It is also quite remarkable that our results are obtained at the end of a six-year recession period in Italy, since we would have expected the adverse economic conditions during which our experiment was held to reduce the other for factors, apart from prices and economic convenience, in determining consumer choices.

The interpretation of our findings can be related to different strands of the literature and, more specifically, to those arguing for the existence of unconditional - or social context dependent - other-regarding preferences and to CSR as a signal of product quality (thus not implying other-regarding preferences). This is because our experimental setting changes neither the prices nor the choice set of consumers, and the Behind the Brands campaign domains are mostly related to corporate conduct along the supply chains on issues not directly concerning self-interest of final

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[9]We basically remove in this exercise the hypothesis of no-carry-over assumption and assume that consumers have memory of the past treatment also in the following control period in which the shelf poster is removed (in stores where the treatment phase comes before the control phase). Note however that the violation of the no carry-over assumption would produce a downward bias in our findings, therefore making the observed significance of the treatment effect even sharper.

consumers.

A key policy implication of our experiment would be that social and environmental goals of the policymakers could in part be achieved without costs for the government budget, by just bringing consumers closer to the perfect information assumption of textbook economic models. This is because, when information on CSR is provided, a share of consumers modifies their choices by increasing (reducing) purchases of top (bottom) CSR brands. This goal can be achieved by providing information at consumer locations on comparative CSR scores of product brands. More specifically, the positive impact of social and environmental responsibility may be to increase CSR benefits on corporate economic performance thereby creating an incentive for its implementation at a corporate level.

The issue of properly defining high/low standards of social and environmental responsibility obviously arises here. We did not address this in the paper as we were simply interested in measuring the effects of publicising the rankings based on the criteria already defined by Oxfam without discussing their merit. A caveat to the policy implication of our results is that our findings come from a small scale (time-space contingent) experiment limited in time. General equilibrium effects, the impact of information overload, and time persistence of the significance of the treatment, need to be carefully evaluated in the case of policy measures using similar treatments persistently over time and on a larger scale. The combination of policy implications given these issues necessitates further research in this direction.

Some other issues emerge also from our analysis. The experimental findings include some apparently paradoxical results in the relation between the Behind the Brands ranking and the impact on sales. We interpret these results as related, in one case, to the difficulty of linking brands to parent companies and to the different reputation between companies and brands (the Twinings tea/ABF case), or, in the two other cases, to consumers' a priori beliefs and the reputation of some companies (the Nestlé and Coca-Cola case). If this interpretation is correct, it would imply that the significance of policies based on the experiment treatment is mediated by consumers' a priori and by their capacity of linking products to companies (the online Behind the Brands website allows you to do this but our scorecard poster does not). In addition, we remark that the slightly negative 'invisibility' effect related to the small market share loss of companies not present in the ranking may reduce the incentive of the supermarkets to follow the policy.

As a general conclusion, our findings reveal that the effect of more widespread information on corporate reputation to the general public may be relevant. The need for high quality standards for such information in order to avoid the undesired effects of manipulation and post-truths on consumer markets is therefore another crucial related issue that may inspire future research.

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Figures and tables

Figure 1: Scorecard of the Oxfam Behind the Brands campaign posted at supermarket entries in the field experiment (in Italian).
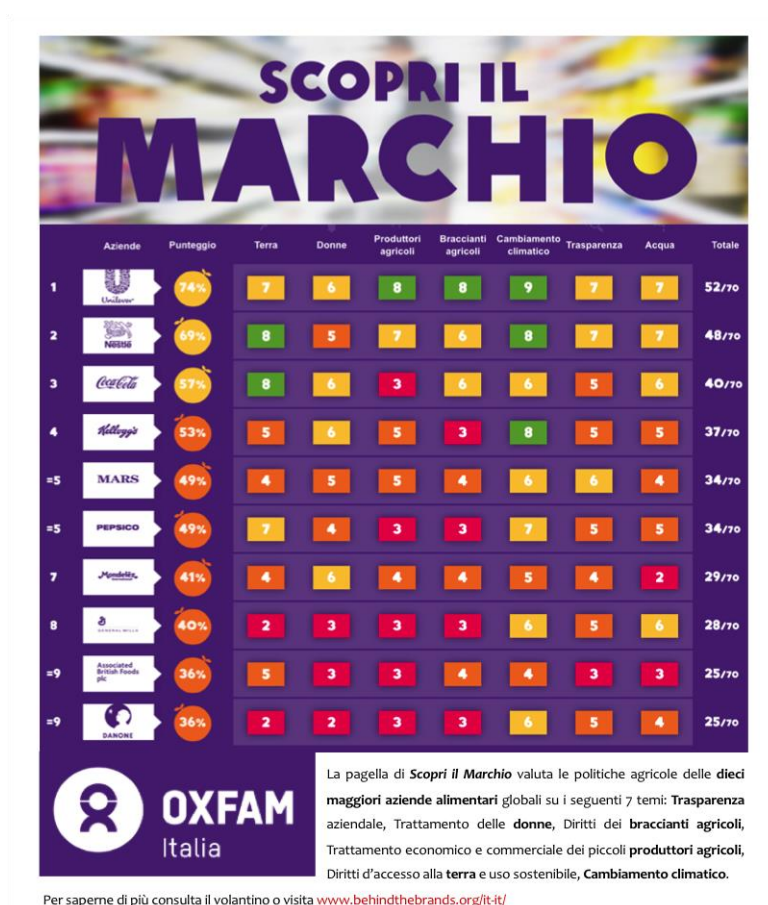
Meaning of the scores given by the Oxfam's campaign: Good = 8–10; Fair = 6–7; Some progress = 4–5; Poor = 2–3; Very poor = 0–1.

Translation into English

Brand	Land	Women	Farmers	Workers	Climate	Transparency	Water	**Total**
Unilever	7	6	8	8	9	7	7	52
Neslé	8	5	7	6	8	7	7	48
Cocal Cola	8	6	3	6	6	5	6	40
Kellogg's	5	6	5	3	8	5	5	37
Mars	4	5	5	4	6	6	4	34
PepsiCo	7	4	3	3	7	5	5	34
Mondelez	4	6	4	4	5	4	2	29
General Mills	2	3	3	3	6	5	6	28
ABF	5	3	3	4	4	3	3	25
Danone	2	2	3	3	6	5	4	25

Figure 2: Position of the Behind the Brand scorecard at supermarket's entry.

Table 1: Brands and sales of the companies ranked in the Oxfam Behind the Brands campaign (period 30 May 2016 – 24 July 2016).

Brand	Sales (€)	%*	Brand	Sales (€)	%*
Unilever	250,486.60	3.51	*Nestlé*	160,918.06	2.25
Coccolino	5,968.43		Buitoni	72,091.91	
Algida	11,629.82		Mare Fresco	1,215.97	
Mentadent	23,255.7		Fruttolo	6,619.6	
Knorr	18,534.91		Nestlé	8,766.3	
Dove	20,393.57		Mio	7,935.93	
Svelto	10,655.51		Smarties	485.15	
Lysoform	11,859.99		Belte'	2,499.96	
Fissan	2,701.98		Galak	332.2	
Badedas	1,480.82		Lc1	1,544.67	
Cif	6,380.24		Nesquik	8,255.79	
Clear	1,826.35		Vera	4,714.36	
Calve'	15,804.62		Orzoro	2,768.43	
Lipton	3,905.1		Nescafe'	27,521.21	
Axe	479.69		Baci	3,190.74	
Carte D'or	20,908.72		Fruit Joy	225.33	
Sunsilk	6,557.11		Kit Kat	824.59	
Glysolid	722.77		Lion	183.06	
Cornetto	38,310.34		Maggi	602.25	
Magnum	45,283.13		Nidina	754.73	

Brand	Sales	%*	Brand	Sales	%*
Zendium	3,827.79		Polo	416.95	
			Perugina	9,459.12	
Coca Cola	132,422.58	1.85	Bacetti Perugina	509.81	
Fanta	16,780.97				
Coca Cola	104,325.6		*Kellogg's*	57,575.86	0.81
Powerade	3,066.19		Pringles	9,036.04	
Sprite	3,901.74		Kellogg's	48,539.82	
Burn	1,636.82				
Lilia	2,711.26		*PepsiCo*	12,475.63	0.17
			Pepsi	5,433.78	
Mars	47,797.96	0.67	Gatorade	3,211.82	
Uncle Ben's	18.88		Seven Up	149.52	
M&M's	1,045.64		Lay's	3,680.51	
Kitekat	6,281.5				
Pedigree	6,138.97		*Mondelez*	121,422.47	1.70
Suzi Wan	261.75		Kraft	1,594.42	
Bounty	3,413.46		Saiwa	3,723.72	
Cesar	5,111.01		Philadelphia	40,241.63	
Mars	2,813.54		Milka	6,907.68	
Sheba	8,466.17		Toblerone	159.68	
Snickers	244.77		Oro Saiwa	26,763.22	
Twix	476.85		Ritz	852.67	
Whiskas	11,679.75		Tuc	6,685.98	
Perfect Fit	1,160.92		Figaro	497.29	
Catisfaction	684.75		Halls	955	
			Nabisco Oreo	1,962.7	
ABF	8,245.3	0.12	Sottilette	28,617.26	
Twinings	8,245.3		Mikado	2,461.22	
Danone	104,671.74	1.47	*Coop*	1,419,099.14	19.88
Danone	6,892.68		Crescendo	53,022.9	
Actimel	14,684.68		Fior Fiore	165,096.3	
Activia	41,973.67		Solidal	19,305.49	
Danette	3,198.79		Coop.	904,300.9	
Vitasnella	14,193.72		Club 4-10	872.23	
Danacol	16,210.99		Vivi Verde	107,480.5	
Vitasnella Danone	7,517.21		Bene Si	69,207.07	
			Origine	48,171.96	
Barilla	181,268.61	2.54	Amici Speciali	43,090.92	
Barilla	1,109.3		Amici Speciali Premium	8,550.87	
Mulino Bianco	141,240.6				
Pavesi	36,187.14		*Ferrero*	103,917.28	1.46
Wasa	2,731.57		Ferrero	5,037.04	
			Kinder	40,380.87	
Sammontana	100,321.6	1.41	Estathé	50,873.34	
			Tic Tac	4,953.19	
Lavazza	139,245.6	1.95	Tronky	1,631.02	
			Duplo	1,041.82	
Mukki	138,547	1.94			

Total	2,978,415.49	41.72

* Percent of sales on total sales in the shopping places selected for the experiment.

Table 2: Weekly average market shares and weekly total sales at product level for the Oxfam-ranked companies.

			Control period					Treatment period		
Variable	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
Unilever										
Market share	2,696	0.033	0.002	0.030	0.039	2,675	0.036	0.006	0.028	0.048
Total sales	2,696	44,642	77,451	0.000	1109,920	2,675	48,647	104,683	0.000	1479,580
Nestlé										
Market share	2,388	0.022	0.003	0.016	0.025	2,428	0.023	0.004	0.016	0.030
Total sales	2,388	34,319	61,205	0.000	682,400	2,428	32,523	56,893	0.000	753,100
Coca Cola										
Market share	396	0.019	0.005	0.011	0.027	394	0.018	0.003	0.014	0,023
Total sales	396	168,348	307,692	0,360	1801,380	394	166,895	323,098	1,250	2235,200
Kellogg's										
Market share	466	0.008	0.001	0.006	0.010	466	0.008	0.001	0.007	0.010
Total sales	466	62,885	79,885	1,400	709,390	466	60,668	75,929	2,080	544,520
Mars										
Market share	833	0.007	0.002	0.004	0.010	892	0.007	0.002	0.005	0.010
Total sales	833	27,810	29,666	0,940	252,330	892	27,611	28,866	1,050	219,210
PepsiCo										
Market share	196	0.002	0.001	0.001	0.003	198	0.002	0.000	0.001	0.003
Total sales	196	33,152	25,603	3,710	127,670	198	30,191	28,282	0,800	167,130
Mondelez										
Market share	1,007	0.017	0.001	0.015	0.020	1,009	0.017	0.001	0.015	0.019
Total sales	1,007	61,496	141,056	0,950	1025,260	1,009	59,392	141,745	0.950	1717,690
ABF										
Market share	112	0.001	0.000	0.001	0.002	118	0.001	0.000	0.001	0.002
Total sales	112	37,361	33,875	2,500	165,700	118	34,414	27,714	2,500	128,800
Danone										
Market share	631	0.014	0.002	0.011	0.017	618	0.013	0.002	0.010	0.016
Total sales	631	79,657	144,751	0,530	1169,660	618	76,886	133,332	0,530	1298,720

Table 3: The effect of the Behind the Brands scorecard poster on companies' market shares.

Variables [Position, Score]	(1) Bootstrap Mkt shares	(2) Bootstrap Mkt shares	(3) ML Mkt shares	(4) ML Mkt shares
Unilever*Treat [1st, 52]	0.0614***	0.0614***	0.0614***	0.0614***
	(0.00298)	(0.00302)	(0.00105)	(0.00105)
Nestlé*Treat [2nd, 48]	-0.00120	-0.00120	-0.00120	-0.00120
	(0.00345)	(0.00354)	(0.00111)	(0.00111)
Coca Cola*Treat [3rd, 40]	-0.00323	-0.00323	-0.00323	-0.00323
	(0.0122)	(0.0117)	(0.00267)	(0.00267)
Kellogg's*Treat [4th, 37]	0.0180**	0.0180**	0.0180***	0.0180***
	(0.00718)	(0.00731)	(0.00247)	(0.00247)
Mars*Treat [5th, 34]	0.0783***	0.0783***	0.0783***	0.0783***
	(0.00514)	(0.00546)	(0.00181)	(0.00181)
PepsiCo*Treat [6th, 34]	-0.0710**	-0.0710**	-0.0710***	-0.0710***
	(0.0312)	(0.0308)	(0.00375)	(0.00375)
Mondelez*Treat [7th, 29]	-0.00777***	-0.00777***	-0.00777***	-0.00777***
	(0.00263)	(0.00262)	(0.00169)	(0.00169)
ABF*Treat [9th, 25]	0.0323**	0.0323**	0.0323***	0.0323***
	(0.0147)	(0.0154)	(0.00482)	(0.00482)
Danone*Treat [10th, 25]	-0.0219***	-0.0219***	-0.0219***	-0.0219***
	(0.00276)	(0.00303)	(0.00198)	(0.00198)
Coop*Treat		-0.00137***		-0.00137***
		$(3.81e^{-05})$		(0.000356)
Barilla*Treat		-0.00138***		-0.00138
		$(9.32e^{-05})$		(0.00115)
Lavazza*Treat		-0.00156***		-0.00156

	(1)	(2)	(3)	(4)
		(0.000203)		(0.00201)
Mukki*Treat		-0.00126***		-0.00126
		(0.000124)		(0.00143)
Sammontana*Treat		-0.00128***		-0.00128
		(0.000196)		(0.00219)
Ferrero*Treat		-0.00137***		-0.00137
		(0.000129)		(0.00147)
Price	Yes	Yes	Yes	Yes
Company/Store FE	Yes	Yes	Yes	Yes
Week FE	Yes	Yes	Yes	Yes
Joint significance of				
ranked brands $F(9 ; 156{,}493)$	741.60 (0.000)	685.38 (0.000)	5899.83 (0.000)	5900.61 (0.000)
non-ranked brands $F(6 ; 156{,}493)$		1786.44 (0.000)		18.13 (0.006)
top 5 ranked brands $F(5 ; 156{,}493)$	674.64 (0.000)	635.04 (0.000)	5352.73 (0.000)	5353.44 (0.000)
bottom 4 ranked brands $F(4 ; 156{,}493)$	84.46 (0.000)	68.34 (0.000)	547.10 (0.000)	547.18(0.000)
No. of groups			4	4
Observations	156,493	156,493	156,493	156,493
R-squared	0.99	0.99		
Likelihood ratio test vs. linear model $\bar{\chi}^2_{01}$			$1.4e^{-09}$ (1.000)	(1.000)

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.

*** p<0.01, ** p<0.05, * p<0.1

Table 4: The effect of information on Behind the Brands total score on ranked companies' market shares.

	Bootstrap (1)	Bootstrap (2)	ML (3)	ML (4)
Variables	Mkt shares	Mkt shares	Mkt shares	Mkt shares
Treat*Totalscore	0.000503***	0.000596***	0.000503**	0.000596***
	(0.000150)	($4.10e^{-05}$)	(0.000198)	($4.05e^{-05}$)
Totalscore	0.0497***	0.0509***	0.0497***	0.0509***
	(0.000519)	(0.000963)	(0.000453)	(0.00200)
Company/Store FE	No	Yes	No	Yes
Store FE	Yes	No	Yes	No
Week FE	Yes	Yes	Yes	
Price	Yes	Yes	Yes	Yes
Observations	16,287	16,287	16,287	16,287
No. of groups			4	4
R-squared	0.449	0.977		

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.

*** p<0.01, ** p<0.05, * p<0.1

A   Appendix. Additional tables.

Table A.1: Store randomisation with respect to store and neighbourhood characteristics.

	Group 1	Group 2
Total Sales/mq	16,839.78	14,014.04
Age	57.9	57.8
Education	76.8	70.7
Foreigners	11.10	12.55
Income	129.04	115.20

Group 1 includes stores assigned to Control–Treatment phases order and Group 2 includes stores assigned to Treatment–Control phase order. *Total Sales/mq* refers to store total sales per squared meter in the year before the experiment, *i.e.* 2015; *Age* refers to the average age of people living in the store neighbourhood; *Education* refers to the percentage of people with a high school diploma living in the store neighbourhood; *Foreigners* refers to the percentage of non-Italian people living in the store neighborhood; Income refers to the household income of households living in the store neighbourhoods, where 100 is the average income of all households potentially supplied by Coop in Tuscany, Italy.

Table A.2: The effect of the Behind the Brands scorecard poster on companies' market shares (First two weeks only).

Variables	(1) Bootstrap Mkt shares	(2) Bootstrap Mkt shares	(3) ML Mkt shares	(4) ML Mkt shares
Unilever*Treat	0.0553***	0.0553***	0.0553***	0.0553***
	(0.00562)	(0.00522)	(0.00172)	(0.00172)
Nestlé*Treat	0.0178***	0.0178***	0.0178***	0.0178***
	(0.00591)	(0.00561)	(0.00179)	(0.00179)
Coca Cola*Treat	0.0183	0.0183	0.0183***	0.0183***
	(0.0233)	(0.0233)	(0.00442)	(0.00442)
Kellogg's*Treat	0.0230***	0.0230***	0.0230***	0.0230***
	(0.00722)	(0.00630)	(0.00404)	(0.00404)
Mars*Treat	0.0854***	0.0854***	0.0854***	0.0854***
	(0.00794)	(0.00797)	(0.00295)	(0.00295)
PepsiCo*Treat	-0.00424	-0.00424	-0.00424	-0.00424
	(0.0532)	(0.0517)	(0.00601)	(0.00601)
Mondelez*Treat	-0.0242***	-0.0242***	-0.0242***	-0.0242***
	(0.00271)	(0.00222)	(0.00273)	(0.00273)
ABF*Treat	0.0141	0.0141	0.0141*	0.0141*
	(0.0232)	(0.0222)	(0.00782)	(0.00782)
Danone*Treat	-0.0382***	-0.0382***	-0.0382***	-0.0382***
	(0.00306)	(0.00305)	(0.00321)	(0.00321)
Coop*Treat		-0.00146***		-0.00146**
		(5.96e^{-05})		(0.000586)
Barilla*Treat		-0.00135***		-0.00135
		(0.000157)		(0.00189)
Lavazza*Treat		-0.00185***		-0.00185
		(0.000292)		(0.00329)
Mukki*Treat		-0.00132***		-0.00132
		(0.000189)		(0.00234)
Sammontana*Treat		-0.00150***		-0.00150
		(0.000281)		(0.00363)

	(1)	(2)	(3)	(4)
Ferrero*Treat		-0.00133***		-0.00133
		(0.000198)		(0.00237)
Price	Yes	Yes	Yes	Yes
Company/Store FE	Yes	Yes	Yes	Yes
Week FE	Yes	Yes	Yes	Yes
Joint significance of				
ranked brands $F_{(9; 78,590)}$	463.87 (0.000)	462.52 (0.000)	2245.42 (0.000)	2245.62 (0.000)
non-ranked brands $F_{(6; 78,590)}$		929.22 (0.000)		7.56 (0.272)
top 5 ranked brands $F_{(5; 78,590)}$	244.44 (0.000)	244.52 (0.000)	2021.59 (0.000)	2021.76 (0.000)
bottom 4 ranked brands $F_{(4; 78,590)}$	234.73 (0.000)	225.44 (0.000)	223.83 (0.000)	223.85 (0.000)
No. of groups			4	4
Observations	78,590	78,590	78,590	78,590
R-squared	0.99	0.99		

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table A.3: The effect of the Behind the Brands scorecard poster on market shares (including pure control stores).

	(1) Bootstrap	(2) Bootstrap	(3) ML	(4) ML
VARIABLES	Mkt shares	Mkt shares	Mkt shares	Mkt shares
Unilever*Treat	0.0607***	0.0607***	0.0607***	0.0607***
	(0.00308)	(0.00318)	(0.00105)	(0.00105)
Nestlé*Treat	-0.00192	-0.00192	-0.00192*	-0.00192*
	(0.00354)	(0.00346)	(0.00111)	(0.00111)
Coca Cola*Treat	-0.00396	-0.00396	-0.00396	-0.00396
	(0.0116)	(0.0117)	(0.00266)	(0.00266)
Kellogg's*Treat	0.0173**	0.0173**	0.0173***	0.0173***
	(0.00770)	(0.00710)	(0.00246)	(0.00246)
Mars*Treat	0.0775***	0.0775***	0.0775***	0.0775***
	(0.00520)	(0.00551)	(0.00181)	(0.00181)
PepsiCo*Treat	-0.0716**	-0.0716**	-0.0716***	-0.0716***
	(0.0303)	(0.0306)	(0.00374)	(0.00374)
Mondelez*Treat	-0.00838***	-0.00838***	-0.00838***	-0.00838***
	(0.00251)	(0.00252)	(0.00169)	(0.00169)
ABF*Treat	0.0316**	0.0316**	0.0316***	0.0316***
	(0.0156)	(0.0153)	(0.00481)	(0.00481)
Danone*Treat	-0.0226***	-0.0226***	-0.0226***	-0.0226***
	(0.00309)	(0.00295)	(0.00198)	(0.00198)
Coop*Treat		-0.00130***		-0.00130***
		($3.90e^{-05}$)		(0.000349)
Barilla*Treat		-0.00131***		-0.00131
		($1.00e^{-05}$)		(0.00115)
Lavazza*Treat		-0.00151***		-0.00151
		(0.000191)		(0.00200)
Mukki*Treat		-0.00119***		-0.00119
		(0.000119)		(0.00143)
Sammontana*Treat		-0.00121***		-0.00121
		(0.000175)		(0.00219)
Ferrero*Treat		-0.00130***		-0.00130
		(0.000127)		(0.00147)
Price	Yes	Yes	Yes	Yes
Company/Store FE	Yes	Yes	Yes	Yes
Week FE	Yes	Yes	Yes	Yes
Joint significance of				
ranked brands $F_{(9; 272,265)}$	671.04 (0.000)	575.54 (0.000)	5815.21 (0.000)	5815.63 (0.000)
non-ranked brands $F_{(6; 272,265)}$		1629.30 (0.000)		16.84 (0.009)

top 5 ranked brands F(5 ; 272,265)	399.93 (0.000)	366.50 (0.000)	3416.29 (0.000)	3416.51 (0.000)
bottom 4 ranked brands F(4 ; 272,265)	273.04 (0.000)	277.15 (0.000)	2398.92 (0.000)	2399.12 (0.000)
No. of groups			7	7
Observations	272,265	272,265	272,265	272,265
R-squared	0.99	0.99		

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.
*** p<0.01, ** p<0.05, * p<0.1

Table A.4: The effect of the Behind the Brands scorecard poster on companies' market shares (without price controls).

Variables [Position, Score]	(1) Bootstrap Mkt shares	(2) Bootstrap Mkt shares	(3) ML Mkt shares	(4) ML Mkt shares
Unilever*Treat [1st, 52]	0.0609***	0.0609***	0.0609***	0.0609***
	(0.00292)	(0.00291)	(0.00101)	(0.00101)
Nestlé*Treat [2nd, 48]	0.000753	0.000753	0.000753	0.000753
	(0.00336)	(0.00349)	(0.00106)	(0.00106)
Coca Cola*Treat [3rd, 40]	-0.00468	-0.00468	-0.00468*	-0.00468*
	(0.0112)	(0.0110)	(0.00262)	(0.00262)
Kellogg's*Treat [4th, 37]	0.0182***	0.0182**	0.0182***	0.0182***
	(0.00678)	(0.00699)	(0.00242)	(0.00242)
Mars*Treat [5th, 34]	0.0777***	0.0777***	0.0777***	0.0777***
	(0.00525)	(0.00544)	(0.00178)	(0.00178)
PepsiCo*Treat [6th, 34]	-0.0742**	-0.0742**	-0.0742***	-0.0742***
	(0.0304)	(0.0304)	(0.00371)	(0.00371)
Mondelez*Treat [7th, 29]	-0.00750***	-0.00750***	-0.00750***	-0.00750***
	(0.00230)	(0.00251)	(0.00165)	(0.00164)
ABF*Treat [9th, 25]	0.0323**	0.0323**	0.0323***	0.0323***
	(0.0156)	(0.0154)	(0.00486)	(0.00486)
Danone*Treat [10th, 25]	-0.0209***	-0.0209***	-0.0209***	-0.0209***
	(0.00310)	(0.00293)	(0.00195)	(0.00195)
Coop*Treat		-0.00139***		-0.00139***
		$(3.06e^{-05})$		(0.000353)
Barilla*Treat		-0.00138***		-0.00138
		$(9.78e^{-05})$		(0.00114)
Lavazza*Treat		-0.00147***		-0.00147
		(0.000147)		(0.00195)
Mukki*Treat		-0.00130***		-0.00130
		(0.000120)		(0.00144)
Sammontana*Treat		-0.00134***		-0.00134
		(0.000171)		(0.00204)
Ferrero*Treat		-0.00137***		-0.00137
		(0.000127)		(0.00147)
Company/Store FE	Yes	Yes	Yes	Yes
Week FE	Yes	Yes	Yes	Yes
Joint significance of				
ranked brands F(9 ; 166,591)	705.45 (0.000)	713.26 (0.000)	6215.66 (0.000)	6216.38 (0.000)
non-ranked brands F(6 ; 166,591)		2473.18 (0.000)		19.09 (0.004)
top 5 ranked brands F(5 ; 166,591)	640.73 (0.000)	633.71 (0.000)	5637.33 (0.000)	5637.98 (0.000)
bottom 4 ranked brands F(4 ; 166,591)	66.49 (0.000)	71.50 (0.000)	578.34 (0.000)	578.41 (0.000)
No. of groups			4	4
Observations	166,591	166,591	166,591	166,591
R-squared	0.99	0.99		

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.
*** p<0.01, ** p<0.05, * p<0.1

Table A.5: The effect of the Behind the Brands scorecard poster on companies' market shares. (controlling for food vs non-food effect).

Variables	(1) Bootstrap Mkt shares	(2) Bootstrap Mkt shares	(3) ML Mkt shares	(4) ML Mkt shares
Unilever*Treat	0.0598***	0.0598***	0.0598***	0.0598***
	(0.00398)	(0.00399)	(0.00131)	(0.00131)
Nestlé*Treat	-0.00120	-0.00120	-0.00120	-0.00120
	(0.00376)	(0.00366)	(0.00111)	(0.00111)
Coca Cola*Treat	-0.00323	-0.00323	-0.00323	-0.00323
	(0.0123)	(0.0126)	(0.00267)	(0.00267)
Kellogg's*Treat	0.0180**	0.0180**	0.0180***	0.0180***
	(0.00735)	(0.00732)	(0.00247)	(0.00247)
Mars*Treat	0.0830***	0.0829***	0.0830***	0.0829***
	(0.00899)	(0.00879)	(0.00291)	(0.00291)
PepsiCo*Treat	-0.0710**	-0.0710**	-0.0710***	-0.0710***
	(0.0306)	(0.0318)	(0.00375)	(0.00375)
Mondelez*Treat	-0.00738***	-0.00739***	-0.00738***	-0.00739***
	(0.00255)	(0.00248)	(0.00171)	(0.00171)
ABF*Treat	0.0323**	0.0323**	0.0323***	0.0323***
	(0.0150)	(0.0156)	(0.00482)	(0.00482)
Danone*Treat	-0.0219***	-0.0219***	-0.0219***	-0.0219***
	(0.00298)	(0.00305)	(0.00198)	(0.00198)
Coop*Treat		-0.00145***		-0.00145***
		$(5.37e^{-05})$		(0.000422)
Barilla*Treat		-0.00143***		-0.00143
		$(9.96e^{-05})$		(0.00115)
Lavazza*Treat		-0.00163***		-0.00163
		(0.000200)		(0.00201)
Mukki*Treat		-0.00131***		-0.00131
		(0.000134)		(0.00143)
Sammontana*Treat		-0.00134***		-0.00134
		(0.000200)		(0.00219)
Ferrero*Treat		-0.00142***		-0.00142
		(0.000124)		(0.00147)
Non-food	$-8.48e^{-05}$	-0.000159	$-8.48e^{-05}$	-0.000159
	$(9.72e^{-05})$	(0.000115)	(0.000208)	(0.000218)
Unilever*Non-food*Treat	0.00293	0.00301	0.00293*	0.00301**
	(0.00448)	(0.00456)	(0.00150)	(0.00150)
Mars*Non-food*Treat	-0.00612	-0.00606	-0.00612**	-0.00606**
	(0.00953)	(0.00912)	(0.00298)	(0.00298)
Mondelez*Non-food*Treat	-0.00768	-0.00761	-0.00768	-0.00761
	(0.00857)	(0.00861)	(0.00547)	(0.00547)
Coop*Non-food		0.000241**		0.000241
		(0.000130)		(0.000779)
Price	Yes	Yes	Yes	Yes
Company/Store FE	Yes	Yes	Yes	Yes
Week FE	Yes	Yes	Yes	Yes
Joint significance of				
ranked brands F(9 ; 156,493)	369.73 (0.000)	391.86 (0.000)	3489.51 (0.000)	3483.32 (0.000)
non-ranked brands F(6 ; 156,493)		834.23 (0.000)		15.26 (0.018)
top 5 ranked brands F(5 ; 156,493)	236.55 (0.000)	231.80 (0.000)	2143.72 (0.000)	2139.70 (0.000)
bottom 4 ranked brands F(4 ; 156,493)	139.80 (0.000)	151.43 (0.000)	1357.82 (0.000)	1356.77 (0.000)
No. of groups			4	4

Observations	156,493	156,493	156,493	156,493
R-squared	0.99	0.99		

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.
*** p<0.01, ** p<0.05, * p<0.1

Table A.6: The effect of the Behind the Brands scorecard poster on market shares (by treatment week).

VARIABLES	(1) Bootstrap Mkt shares	(2) Bootstrap Mkt shares	(3) ML Mkt shares	(4) ML Mkt shares
Unilever*Treat				
Week 1 [Reference]	0.0237***	0.0237***	0.0237***	0.0237***
	(0.00538)	(0.00511)	(0.00162)	(0.00162)
Week 2	0.0768***	0.0767***	0.0768***	0.0767***
	(0.00750)	(0.00746)	(0.00207)	(0.00207)
Week 3	0.0325***	0.0325***	0.0325***	0.0325***
	(0.00589)	(0.00557)	(0.00204)	(0.00205)
Week 4	0.0427***	0.0428***	0.0427***	0.0428***
	(0.00562)	(0.00512)	(0.00205)	(0.00205)
Nestlé*Treat				
Week 1 [Reference]	0.0299***	0.0299***	0.0299***	0.0299***
	(0.00540)	(0.00496)	(0.00169)	(0.00169)
Week 2	-0.0138	-0.0139	-0.0138***	-0.0139***
	(0.00960)	(0.00893)		(0.00214)
Week 3	-0.0276***	-0.0276***	-0.0276***	-0.0276***
	(0.00509)	(0.00481)	(0.00214)	(0.00214)
Week 4	-0.0862***	-0.0862***	-0.0862***	-0.0862***
	(0.00519)	(0.00495)	(0.00217)	(0.00217)
Coca Cola*Treat				
Week 1 [Reference]	-0.0435*	-0.0435*	-0.0435***	-0.0435***
	(0.0251)	(0.0255)	(0.00410)	(0.00410)
Week 2	0.0722**	0.0721**	0.0722***	0.0721***
	(0.0321)	(0.0313)	(0.00524)	(0.00524)
Week 3	0.0218	0.0218	0.0218***	0.0218***
	(0.0254)	(0.0253)	(0.00517)	(0.00517)
Week 4	0.0681***	0.0682***	0.0681***	0.0682***
	(0.0240)	(0.0245)	(0.00516)	(0.00516)
Kellogg's*Treat				
Week 1 [Reference]	0.118***	0.118***	0.118***	0.118***
	(0.00924)	(0.00879)	(0.00379)	(0.00379)
Week 2	-0.0845***	-0.0846***	-0.0845***	-0.0846***
	(0.00975)	(0.00908)	(0.00482)	(0.00482)
Week 3	-0.111***	-0.111***	-0.111***	-0.111***
	(0.0104)	(0.0105)	(0.00476)	(0.00476)
Week 4	-0.206***	-0.206***	-0.206***	-0.206***
	(0.0111)	(0.0102)	(0.00482)	(0.00482)
Mars*Treat				
Week 1 [Reference]	0.119***	0.119***	0.119***	0.119***
	(0.00544)	(0.00497)	(0.00275)	(0.00275)
Week 2	-0.115***	-0.115***	-0.115***	-0.115***
	(0.00872)	(0.00861)	(0.00346)	(0.00346)
Week 3	-0.0596***	-0.0596***	-0.0596***	-0.0596***
	(0.00793)	(0.00755)	(0.00347)	(0.00347)
Week 4	0.00963	0.00971	0.00963***	0.00971***
	(0.00895)	(0.00895)	(0.00347)	(0.00347)
PepsiCo*Treat				
Week 1 [Reference]	-0.162**	-0.162**	-0.162***	-0.162***
	(0.0654)	(0.0692)	(0.00565)	(0.00565)
Week 2	0.128	0.128	0.128***	0.128***

	(1)	(2)	(3)	(4)
	(0.0781)	(0.0805)	(0.00714)	(0.00714)
Week 3	0.181***	0.181***	0.181***	0.181***
	(0.0665)	(0.0703)	(0.00718)	(0.00718)
Week 4	0.0547	0.0548	0.0547***	0.0548***
	(0.0768)	(0.0776)	(0.00735)	(0.00735)
Mondelez*Treat				
Week 1 [Reference]	0.0269***	0.0269***	0.0269***	0.0269***
	(0.00279)	(0.00291)	(0.00256)	(0.00256)
Week 2	-0.0475***	-0.0476***	-0.0475***	-0.0476***
	(0.00380)	(0.00407)	(0.00323)	(0.00323)
Week 3	-0.0119***	-0.0119***	-0.0119***	-0.0119***
	(0.00389)	(0.00399)	(0.00325)	(0.00325)
Week 4	-0.0831***	-0.0830***	-0.0831***	-0.0830***
	(0.00333)	(0.00334)	(0.00330)	(0.00330)
ABF*Treat				
Week 1 [Reference]	0.0324	0.0324	0.0324***	0.0324***
	(0.0281)	(0.0255)	(0.00730)	(0.00730)
Week 2	0.0122	0.0121	0.0122	0.0121
	(0.0312)	(0.0318)	(0.00918)	(0.00918)
Week 3	0.0592**	0.0592**	0.0592***	0.0592***
	(0.0266)	(0.0253)	(0.00925)	(0.00925)
Week 4	-0.0723***	-0.0722***	-0.0723***	-0.0722***
	(0.0251)	(0.0245)	(0.00925)	(0.00925)
Danone*Treat				
Week 1 [Reference]	-0.0280***	-0.0280***	-0.0280***	-0.0280***
	(0.00389)	(0.00396)	(0.00303)	(0.00303)
Week 2	0.0381***	0.0380***	0.0381***	0.0380***
	(0.00361)	(0.00356)	(0.00386)	(0.00386)
Week 3	0.00639	0.00641	0.00639*	0.00641*
	(0.00572)	(0.00538)	(0.00384)	(0.00384)
Week 4	-0.0208***	-0.0207***	-0.0208***	-0.0207***
	(0.00470)	(0.00502)	(0.00389)	(0.00389)
Coop				
Week 1 [Reference]		-0.00141***		-0.00141**
		(0.000196)		(0.000688)
Week 2		-0.000960***		-0.000960
		(0.000322)		(0.000978)
Week 3		0.000188		0.000188
		(0.000258)		(0.000969)
Week 4		0.000836***		0.000836
		(0.000263)		(0.000968)
Barilla				
Week 1 [Reference]		-0.00131***		-0.00131
		(0.000390)		(0.00222)
Week 2		-0.000986***		-0.000986
		(0.000358)		(0.00317)
Week 3		$7.64e^{-06}$		$7.64e^{-06}$
		(0.000349)		(0.00314)
Week 4		0.000652**		0.000652
		(0.000325)		(0.00316)
Lavazza				
Week 1 [Reference]		-0.00172***		-0.00172
		(0.000361)		(0.00388)
Week 2		-0.000947*		-0.000947
		(0.000515)		(0.00552)
Week 3		0.000422		0.000422
		(0.000516)		(0.00545)
Week 4		0.00121***		0.00121
		(0.000443)		(0.00552)
Mukky				
Week 1 [Reference]		-0.00132***		-0.00132
		(0.000287)		(0.00278)
Week 2		-0.000885**		-0.000885

	(1)	(2)	(3)	(4)
	(0.000407)		(0.00392)
Week 3		0.000261		0.000261
		(0.000397)		(0.00396)
Week 4		0.000831**		0.000831
		(0.000350)		(0.00393)
Sammontana				
Week 1 [Reference]		-0.00149***		-0.00149
		(0.000389)		(0.00425)
Week 2		-0.000837		-0.000837
		(0.000547)		(0.00610)
Week 3		0.000429		0.000429
		(0.000559)		(0.00597)
Week 4		0.00111**		0.00111
		(0.000481)		(0.00599)
Ferrero				
Week 1 [Reference]		-0.00133***		-0.00133
		(0.000280)		(0.00281)
Week 2		-0.000881**		-0.000881
		(0.000425)		(0.00397)
Week 3		0.000132		0.000132
		(0.000408)		(0.00403)
Week 4		0.000679*		0.000679
		(0.000359)		(0.00405)
Company/Store FE	Yes	Yes	Yes	Yes
Week FE	Yes	Yes	Yes	Yes
Price	Yes	Yes	Yes	Yes
Observations	156,493	156,493	156,493	156,493
R-squared	0.999	0.999		
Number of groups			4	4

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.
*** p<0.01, ** p<0.05, * p<0.1

Table A.7: The effect of the Behind the Brands scorecard poster on market shares (by product category).

Variables	(1) Bootstrap Mkt shares	(2) Bootstrap Mkt shares	(3) ML Mkt shares	(4) ML Mkt shares
Unilever*Treat				
Pastry [Reference]	0.0459***	0.0458***	0.0459***	0.0458***
	(0.00641)	(0.00633)	(0.00215)	(0.00216)
Baby items	0.0485***	0.0485***	0.0485***	0.0485***
	(0.0145)	(0.0150)	(0.00538)	(0.00539)
Hot beverages	0.0139	0.0138	0.0139***	0.0138***
	(0.0108)	(0.0112)	(0.00366)	(0.00366)
Prepared food	0.0209**	0.0210**	0.0209***	0.0210***
	(0.0100)	(0.00980)	(0.00354)	(0.00355)
Jarred goods	0.0207***	0.0207**	0.0207***	0.0207***
	(0.00794)	(0.00816)	(0.00264)	(0.00265)
Cleaners	0.0109	0.0110	0.0109***	0.0110***
	(0.00806)	(0.00800)	(0.00274)	(0.00275)
Personal care	0.0178**	0.0179**	0.0178***	0.0179***
	(0.00748)	(0.00725)	(0.00241)	(0.00242)
Paramedic products	0.0161	0.0160	0.0161**	0.0160**
	(0.0224)	(0.0202)	(0.00680)	(0.00681)
Nestlé*Treat				
Pastry [Reference]	0.00116	0.00117	0.00116	0.00117
	(0.00454)	(0.00420)	(0.00137)	(0.00137)
Bread and bakery	-0.0118	-0.0118	-0.0118***	-0.0118***
	(0.00758)	(0.00732)	(0.00235)	(0.00235)

Baby items	0.0177	0.0177	0.0177***	0.0177***
	(0.0135)	(0.0124)	(0.00445)	(0.00446)
Hot beverages	-0.00433	-0.00436	-0.00433	-0.00436
	(0.0139)	(0.0133)	(0.00418)	(0.00419)
Prepared food	0.0319	0.0320	0.0319***	0.0320***
	(0.0220)	(0.0225)	(0.00762)	(0.00762)
Jarred goods	-0.00152	-0.00146	-0.00152	-0.00146
	(0.0120)	(0.0123)	(0.00370)	(0.00370)
Cold drinks	0.0121	0.0121	0.0121**	0.0121**
	(0.0168)	(0.0164)	(0.00503)	(0.00503)
Frozen foods	-0.00309	-0.00324	-0.00309	-0.00324
	(0.0104)	(0.0102)	(0.00342)	(0.00343)
Dairy	-0.00895	-0.00892	-0.00895***	-0.00892***
	(0.00783)	(0.00797)	(0.00248)	(0.00249)
Fresh pasta	-0.0161	-0.0161	-0.0161***	-0.0161***
	(0.0141)	(0.0144)	(0.00574)	(0.00574)
Coca Cola*Treat				
Cold drinks	-0.00323	-0.00323	-0.00323	-0.00323
	(0.0121)	(0.0122)	(0.00266)	(0.00266)
Kellogg's*Treat				
Pastry [Reference]	0.0202***	0.0202***	0.0202***	0.0202***
	(0.00743)	(0.00776)	(0.00255)	(0.00255)
Bread and bakery	-0.0189	-0.0189	-0.0189***	-0.0189***
	(0.0144)	(0.0154)	(0.00541)	(0.00541)
Mars*Treat				
Pastry [Reference]	0.0778***	0.0778***	0.0778***	0.0778***
	(0.00871)	(0.00938)	(0.00300)	(0.00300)
Foreign food	0.0888***	0.0889***	0.0888***	0.0889***
	(0.00969)	(0.0107)	(0.0115)	(0.0115)
Pet items	0.000840	-0.000796	-0.000840	-0.000796
	(0.00919)	(0.00994)	(0.00308)	(0.00309)
PepsiCo*Treat				
Cold drinks [Reference]	-0.0662*	-0.0662*	-0.0662***	-0.0662***
	(0.0341)	(0.0348)	(0.00411)	(0.00411)
Bread and bakery	-0.0162	-0.0163	-0.0162***	-0.0163***
	(0.0529)	(0.0506)	(0.00583)	(0.00583)
Mondelez*Treat				
Pastry [Reference]	-0.00710**	-0.00711**	-0.00710***	-0.00711***
	(0.00292)	(0.00285)	(0.00194)	(0.00194)
Bread and bakery	0.000760	0.000725	0.000760	0.000725
	(0.00610)	(0.00657)	(0.00415)	(0.00416)
Jarred goods	0.00136	0.00143	0.00136	0.00143
	(0.00910)	(0.00903)	(0.00599)	(0.00599)
Personal care	-0.00795	-0.00786	-0.00795	-0.00786
	(0.00838)	(0.00856)	(0.00555)	(0.00555)
Dairy	-0.00202	-0.00198	-0.00202	-0.00198
	(0.00467)	(0.00460)	(0.00308)	(0.00308)
ABF*Treat				
Hot beverages	0.0323**	0.0323**	0.0323***	0.0323***
	(0.0152)	(0.0154)	(0.00481)	(0.00481)
Danone*Treat				
Pastry [Reference]	-0.0216***	-0.0216***	-0.0216****	-0.0216***
	(0.00459)	(0.00409)	(0.00326)	(0.00326)
Bread and bakery	0.00547	0.00543	0.00547	0.00543
	(0.0110)	(0.0114)	(0.00775)	(0.00775)
Cold drinks	-0.000409	-0.000360	-0.000409	-0.000360
	(0.0101)	(0.00895)	(0.00710)	(0.00710)
Dairy	-0.000768	-0.000717	-0.000768	-0.000717
	(0.00437)	(0.00450)	(0.00341)	(0.00341)
Coop*Treat				
Pastry [Reference]		-0.00166***		-0.00166*
		(0.000165)		(0.000937)
Bread and bakery		0.000164		0.000164

		(0.000366)		(0.00148)
Baby items		0.000294		0.000294
		(0.000302)		(0.00172)
Hot beverages		0.000175		0.000175
		(0.000338)		(0.00168)
Prepared food		0.000542		0.000542
		(0.00152)		(0.00505)
Jarred goods		0.000176		0.000176
		(0.000467)		(0.00204)
Cold drinks		0.000452		0.000452
		(0.000369)		(0.00194)
Pet items		0.000624*		0.000624
		(0.000362)		(0.00185)
Cleaners		0.000715***		0.000715
		(0.000264)		(0.00153)
Personal care		0.000349		0.000349
		(0.000233)		(0.00145)
Paramedic products		0.000120		0.000120
		(0.000401)		(0.00265)
Frozen foods		$-9.89e^{-06}$		$-9.89e^{-06}$
		(0.000271)		(0.00137)
Dairy		0.000462*		0.000462
		(0.000249)		(0.00135)
Fresh pasta		-0.000467		-0.000467
		(0.000325)		(0.00250)
Barilla*Treat				
Pastry [Reference]		-0.00153***		-0.00153
		(0.000190)		(0.00161)
Bread and bakery		$8.52e^{-05}$		$8.52e^{-05}$
		(0.000402)		(0.00236)
Foreign food		-0.000251		-0.000251
		(0.000685)		(0.00757)
Lavazza*Treat				
Hot beverages		-0.00170***		-0.00170
		(0.000314)		(0.00205)
Mukky*Treat				
Dairy		-0.00109***		-0.00109
		(0.000176)		(0.00146)
Sammontana*Treat				
Pastry		-0.00148***		-0.00148
		(0.000251)		(0.00220)
Ferrero*Treat				
Pastry [Reference]		-0.00160***		-0.00160
		(0.000203)		(0.00166)
Cold drinks		0.000430		0.000430
		(0.000468)		(0.00410)
Dairy		0.000465		0.000465
		(0.000616)		(0.00666)
Bread and bakery	-0.000232	-0.000202	-0.000232	-0.000202
	(0.000291)	(0.000349)	(0.000399)	(0.000426)
Baby items	0.000296	0.000313	0.000296	0.000313
	(0.000242)	(0.000285)	(0.000511)	(0.000541)
Hot beverages	-0.000137	$-5.19e^{-05}$	-0.000137	$-5.19e^{-05}$
	(0.000278)	(0.000316)	(0.000481)	(0.000518)
Foreign food	$-4.75e^{-06}$	-0.000116	$-4.75e^{-06}$	-0.000116
	(0.000182)	(0.000199)	(0.00123)	(0.00124)
Prepared food	-0.000194	-0.000289	-0.000194	-0.000289
	(0.00138)	(0.00144)	(0.00113)	(0.00116)
Jarred goods	-0.000166	-0.000242	-0.000166	-0.000242
	(0.000415)	(0.000433)	(0.000493)	(0.000511)
Cold drinks	-0.000274	-0.000356	-0.000274	-0.000356
	(0.000306)	(0.000338)	(0.000501)	(0.000526)
Pet items	-0.000470	-0.000528	-0.000470	-0.000528

		(0.000275)	(0.000330)	(0.000543)	(0.000575)
Cleaners		-0.000490**	-0.000580**	-0.000490	-0.000580
		(0.000218)	(0.000235)	(0.000395)	(0.000414)
Personal care		-0.000214	-0.000301	-0.000214	-0.000301
		(0.000174)	(0.000207)	(0.000320)	(0.000332)
Paramedic products		-0.000200	-0.000180	-0.000200	-0.000180
		(0.000297)	(0.000334)	(0.000779)	(0.000822)
Frozen foods		$-7.05e^{-05}$	0.000103	$-7.05e^{-05}$	0.000103
		(0.000207)	(0.000252)	(0.000455)	(0.000500)
Dairy		-0.000353*	-0.000392*	-0.000353	-0.000392
		(0.000206)	(0.000217)	(0.000345)	(0.000366)
Fresh pasta		$2.95e^{-05}$	$7.73e^{-05}$	$2.95e^{-05}$	$7.73e^{-05}$
		(0.000207)	(0.000254)	(0.000729)	(0.000769)
Company/Store FE		Yes	Yes	Yes	Yes
Week FE		Yes	Yes	Yes	Yes
Price		Yes	Yes	Yes	Yes
Observations		156,493	156,493	156,493	156,493
R-squared		0.999	0.999		
Number of groups				4	4

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table A.8: The effect of the Behind the Brands scorecard poster on brands' market shares.

Product brand	Company brand	(1) Mkt shares	(2) Mkt shares	(3) Mkt shares	(4) Mkt shares
Algida	Unilever	0.0415***	0.0416***	0.0415***	0.0416***
		(0.0109)	(0.0109)	(0.00344)	(0.00344)
Axe	Unilever	0.0760***	0.0760***	0.0760***	0.0760***
		(0.0219)	(0.0214)	(0.00763)	(0.00763)
Badedas	Unilever	0.0578***	0.0578***	0.0578***	0.0578***
		(0.0178)	(0.0175)	(0.00531)	(0.00531)
Calvé	Unilever	0.0680***	0.0680***	0.0680***	0.0680***
		(0.00722)	(0.00685)	(0.00238)	(0.00238)
Carte d'Or	Unilever	0.0438***	0.0438***	0.0438***	0.0438***
		(0.0122)	(0.0124)	(0.00407)	(0.00407)
Cif	Unilever	0.0620***	0.0620***	0.0620***	0.0620***
		(0.0207)	(0.0200)	(0.00379)	(0.00379)
Clear	Unilever	0.0620***	0.0620***	0.0620***	0.0620***
		(0.0198)	(0.0189)	(0.00648)	(0.00648)
Coccolino	Unilever	0.0614***	0.0614***	0.0614***	0.0614***
		(0.0115)	(0.0117)	(0.00389)	(0.00389)
Cornetto	Unilever	0.0413***	0.0413***	0.0413***	0.0413***
		(0.0125)	(0.0125)	(0.00451)	(0.00451)
Dove	Unilever	0.0737***	0.0737***	0.0737***	0.0737***
		(0.00707)	(0.00714)	(0.00230)	(0.00230)
Fissan	Unilever	0.0949***	0.0950***	0.0949***	0.0950***
		(0.0133)	(0.0132)	(0.00502)	(0.00502)
Glysolid	Unilever	0.0620***	0.0620***	0.0620***	0.0620***
		(0.0112)	(0.0120)	(0.00648)	(0.00648)
Knorr	Unilever	0.0658***	0.0658***	0.0658***	0.0658***
		(0.00568)	(0.00621)	(0.00193)	(0.00193)
Lipton	Unilever	0.0598***	0.0598***	0.0598***	0.0598***
		(0.00986)	(0.00948)	(0.00310)	(0.00310)
Lysoform	Unilever	0.0663***	0.0663***	0.0663***	0.0663***
		(0.00897)	(0.00901)	(0.00307)	(0.00306)
Magnum	Unilever	0.0619***	0.0619***	0.0619***	0.0619***
		(0.0146)	(0.0141)	(0.00461)	(0.00461)
Mentadent	Unilever	0.0568***	0.0568***	0.0568***	0.0568***
		(0.00779)	(0.00771)	(0.00250)	(0.00250)
Sunsilk	Unilever	0.0336***	0.0336***	0.0336***	0.0336***

		(0.0110)	(0.00372)	(0.00445)	(0.00445)
Svelto	Unilever	0.0425***	0.0425***	0.0425***	0.0425***
		(0.00917)	(0.00943)	(0.00338)	(0.00338)
Zendium	Unilever	0.0794***	0.0794***	0.0794***	0.0794***
		(0.0144)	(0.0154)	(0.00561)	(0.00561)
Bacetti Perugina	Nestlé	0.0315	0.0316	0.0315***	0.0316***
		(0.0260)	(0.0276)	(0.00863)	(0.00863)
Baci	Nestlé	-0.0142	-0.0142	-0.0142***	-0.0142***
		(0.0146)	(0.0147)	(0.00474)	(0.00474)
Belté	Nestlé	0.00834	0.00832	0.00834	0.00832
		(0.0191)	(0.0199)	(0.00612)	(0.00612)
Buitoni	Nestlé	-0.00425	-0.00424	-0.00425***	-0.00424***
		(0.00500)	(0.00508)	(0.00164)	(0.00164)
Fruit Joy	Nestlé	-0.0134	-0.0134	-0.0134*	-0.0134*
		(0.0266)	(0.0260)	(0.00781)	(0.00781)
Fruttolo	Nestlé	-0.000237	-0.000257	-0.000237	-0.000257
		(0.0170)	(0.0163)	(0.00489)	(0.00489)
Galak	Nestlé	0.00424	0.00421	0.00424	0.00421
		(0.0202)	(0.0212)	(0.00659)	(0.00659)
Kit Kat	Nestlé	0.0108	0.0108	0.0108**	0.0108**
		(0.0141)	(0.0151)	(0.00459)	(0.00459)
Lc1	Nestlé	-0.0466***	-0.0466***	-0.0466***	-0.0466***
		(0.0136)	(0.0144)	(0.00555)	(0.00555)
Lion	Nestlé	-0.00158	-0.00160	-0.00158	-0.00160
		(0.0238)	(0.0248)	(0.00706)	(0.00706)
Maggi	Nestlé	-0.00338	-0.00340	-0.00338	-0.00340
		(0.0208)	(0.0218)	(0.00649)	(0.00649)
Mare Fresco	Nestlé	-0.0594**	-0.0593**	-0.0594***	-0.0593***
		(0.0264)	(0.0254)	(0.00888)	(0.00888)
Mio	Nestlé	0.0114	0.0114	0.0114***	0.0114***
		(0.0110)	(0.0113)	(0.00360)	(0.00360)
Nescafé	Nestlé	-0.00536	-0.00534	-0.00536*	-0.00534*
		(0.00936)	(0.00980)	(0.00302)	(0.00302)
Nesquik	Nestlé	0.00233	0.00233	0.00233	0.00233
		(0.00961)	(0.0954)	(0.00291)	(0.00291)
Nestlé	Nestlé	0.00511	0.00510	0.00511**	0.00510**
		(0.00809)	(0.00807)	(0.00251)	(0.00251)
Nidina	Nestlé	0.0237	0.0240	0.0237***	0.0240***
		(0.0254)	(0.0241)	(0.00891)	(0.00891)
Orzoro	Nestlé	-0.0152	-0.0152	-0.0152***	-0.0152***
		(0.0119)	(0.0126)	(0.00392)	(0.00392)
Perugina Dolci	Nestlé	0.00595	0.00594	0.00595***	0.00594***
		(0.00728)	(0.00728)	(0.00230)	(0.00230)
Polo	Nestlé	-0.00608	-0.00609	-0.00608	-0.00609
		(0.0207)	(0.0219)	(0.00670)	(0.00670)
Smarties	Nestlé	-0.00487	-0.00488	-0.00487	-0.00488
		(0.0220)	(0.0219)	(0.00670)	(0.00670)
Vera	Nestlé	0.0217	0.0217	0.0217***	0.0217***
		(0.0256)	(0.0255)	(0.00819)	(0.00819)
Burn	Coca Cola	0.00849	0.00848	0.00849	0.00848
		(0.0324)	(0.0322)	(0.00671)	(0.00671)
Coca Cola	Coca Cola	0.00846	0.00846	0.00846**	0.00846**
		(0.0157)	(0.0163)	(0.00344)	(0.00344)
Fanta	Coca Cola	-0.0297*	-0.0297*	-0.0297***	-0.0297***
		(0.0174)	(0.0167)	(0.00402)	(0.00402)
Lilia	Coca Cola	-0.0190	-0.0190	-0.0190*	-0.0190*
		(0.0442)	(0.0478)	(0.0104)	(0.0104)
Powerade	Coca Cola	0.00849	0.00848	0.00849	0.00848
		(0.0306)	(0.0321)	(0.00671)	(0.00671)
Sprite	Coca Cola	0.00846	0.00846	0.00846	0.00846
		(0.0335)	(0.0317)	(0.00671)	(0.00671)
Kellogg's	Kellogg's	0.0202***	0.0202***	0.0202***	0.0202***
		(0.00778)	(0.00759)	(0.00254)	(0.00254)

Pringles	Kellogg's	0.00113	0.00112	0.00113	0.00112
		(0.0142)	(0.0149)	(0.00535)	(0.00535)
Bounty	Mars	0.0817***	0.0817***	0.0817***	0.0817***
		(0.0156)	(0.0158)	(0.00517)	(0.00517)
Catisfaction	Mars	0.0820***	0.0820***	0.0820***	0.0820***
		(0.0207)	(0.0212)	(0.00689)	(0.00689)
Cesar	Mars	0.0831***	0.0831***	0.0831***	0.0831***
		(0.00974)	(0.0101)	(0.00334)	(0.00334)
Kitekat	Mars	0.0722***	0.0722***	0.0722***	0.0722***
		(0.0164)	(0.0158)	(0.00504)	(0.00504)
M&M's	Mars	0.0771***	0.0772***	0.0771***	0.0772***
		(0.0228)	(0.0218)	(0.00667)	(0.00667)
Mars	Mars	0.0701***	0.0701***	0.0701***	0.0701***
		(0.0166)	(0.0165)	(0.00504)	(0.00504)
Pedigree	Mars	0.0749***	0.0749***	0.0749***	0.0749***
		(0.0103)	(0.0107)	(0.00326)	(0.00326)
Perfect Fit	Mars	0.0728***	0.0728***	0.0728***	0.0728***
		(0.0207)	(0.0221)	(0.00667)	(0.00667)
Sheba	Mars	0.0700***	0.0700***	0.0700***	0.0700***
		(0.0133)	(0.0128)	(0.00416)	(0.00416)
Snickers	Mars	0.0911***	0.0911***	0.0911***	0.0911***
		(0.0253)	(0.0258)	(0.00923)	(0.00923)
Suzi Wan	Mars	0.168***	0.168***	0.168***	0.168***
		(0.00635)	(0.00650)	(0.0150)	(0.0150)
Twix	Mars	0.0808***	0.0808***	0.0808***	0.0808***
		(0.0214)	(0.0218)	(0.00667)	(0.00667)
Uncle Ben's	Mars	0.166***	0.166***	0.166***	0.166***
		(0.0115)	(0.0111)	(0.0164)	(0.0164)
Whiskas	Mars	0.0784***	0.0783***	0.0784***	0.0783***
		(0.0103)	(0.00957)	(0.00323)	(0.00323)
Gatorade	PepsiCo	-0.0781	-0.0781	-0.0781***	-0.0781***
		(0.0575)	(0.0594)	(0.00696)	(0.00696)
Lay's	PepsiCo	-0.0826*	-0.0826*	-0.0826***	-0.0826***
		(0.0469)	(0.0500)	(0.00555)	(0.00555)
Pepsi	PepsiCo	-0.0741**	-0.0741*	-0.0741***	-0.0741***
		(0.0394)	(0.0391)	(0.00458)	(0.00458)
Seven Up	PepsiCo	0.0791	0.0791	0.0791***	0.0791***
		(0.106)	(0.0996)	(0.0135)	(0.0135)
Figaro	Mondelez	-0.0151*	-0.0152*	-0.0151***	-0.0152***
		(0.00911)	(0.00867)	(0.00545)	(0.00545)
Halls	Mondelez	-0.00587	-0.00586	-0.00587	-0.00586
		(0.00941)	(0.00892)	(0.00575)	(0.00575)
Kraft	Mondelez	-0.00582	-0.00583	-0.00582	-0.00583
		(0.00905)	(0.00919)	(0.00588)	(0.00588)
Mikado	Mondelez	-0.00141	-0.00141	-0.00141	-0.00141
		(0.00790)	(0.00825)	(0.00582)	(0.00582)
Milka	Mondelez	-0.00835**	-0.00835**	-0.00835***	-0.00835***
		(0.00345)	(0.00395)	(0.00243)	(0.00243)
Nabisco Oreo	Mondelez	-0.00259	-0.00255	-0.00259	-0.00255
		(0.0188)	(0.0193)	(0.0106)	(0.0106)
Oro Saiwa	Mondelez	-0.00411	-0.00410	-0.00411	-0.00410
		(0.00501)	(0.00492)	(0.00330)	(0.00330)
Philadelphia	Mondelez	-0.00951*	-0.00951*	-0.00951***	-0.00951***
		(0.00520)	(0.00523)	(0.00347)	(0.00347)
Ritz	Mondelez	$-1.85e^{-05}$	$-1.93e^{-05}$	$-1.85e^{-05}$	$-1.93e^{-05}$
		(0.0104)	(0.0110)	(0.00725)	(0.00725)
Saiwa	Mondelez	-0.00903	-0.00904	-0.00903	-0.00904
		(0.0102)	(0.0102)	(0.00655)	(0.00655)
Sottilette	Mondelez	-0.00905	-0.00905	-0.00905*	-0.00905*
		(0.00716)	(0.00705)	(0.00471)	(0.00471)
Toblerone	Mondelez	-0.0267*	-0.0267*	-0.0267***	-0.0267***
		(0.0140)	(0.0148)	(0.0102)	(0.0102)
Tuc	Mondelez	-0.00904	-0.00904	-0.00904*	-0.00904*

		(0.00713)	(0.00689)	(0.00471)	(0.00471)
Twinings	ABF	0.0323**	0.0323**	0.0323***	0.0323***
		(0.0161)	(0.0144)	(0.00481)	(0.00481)
Actimel	Danone	-0.0214***	-0.0214***	-0.0214***	-0.0214***
		(0.00620)	(0.00605)	(0.00426)	(0.00426)
Activia	Danone	-0.0249***	-0.0249***	-0.0249***	-0.0249***
		(0.00552)	(0.00520)	(0.00372)	(0.00372)
Danacol	Danone	-0.0221***	-0.0221***	-0.0221***	-0.0221***
		(0.00686)	(0.00662)	(0.00476)	(0.00476)
Danette	Danone	-0.0221**	-0.0220**	-0.0221***	-0.0220***
		(0.00936)	(0.00921)	(0.00659)	(0.00659)
Danone	Danone	-0.0221***	-0.0221***	-0.0221***	-0.0221***
		(0.00569)	(0.00568)	(0.00405)	(0.00405)
Vitasnella	Danone	-0.0206***	-0.0206***	-0.0206***	-0.0206***
		(0.00381)	(0.00385)	(0.00265)	(0.00265)
Vitasnella Danone	Danone	-0.0220**	-0.0220**	-0.0220***	-0.0220***
		(0.00912)	(0.00926)	(0.00659)	(0.00659)
Coop	Coop		-0.00136***		-0.00136***
			$(3.32e^{-05})$		(0.000355)
Barilla	Barilla		-0.00167**		-0.00167
			(0.000665)		(0.00729)
Mulino Bianco	Barilla		-0.00135***		-0.00135
			(0.000114)		(0.00138)
Pavesi	Barilla		-0.00139***		-0.00139
			(0.000198)		(0.00230)
Wasa	Barilla		-0.00129**		-0.00129
			(0.000554)		(0.00644)
Lavazza	Lavazza		-0.00160***		-0.00160
			(0.000182)		(0.00200)
Mukky	Mukky		-0.00125***		-0.00125
			(0.000124)		(0.00143)
Sammontana	Sammontana		-0.00130***		-0.00130
			(0.000185)		(0.00218)
Duplo	Ferrero		-0.00129**		-0.00129
			(0.000561)		(0.00644)
Estathe	Ferrero		-0.00131***		-0.00131
			(0.000289)		(0.00343)
Ferrero	Ferrero		-0.00130***		-0.00130
			(0.000323)		(0.00415)
Kinder	Ferrero		-0.00142***		-0.00142
			(0.000186)		(0.00220)
Tic Tac	Ferrero		-0.00135***		-0.00135
			(0.000310)		(0.00376)
Tronky	Ferrero		-0.00128**		-0.00128
			(0.000561)		(0.00644)
Company/Store FE		Yes	Yes	Yes	Yes
Price		Yes	Yes	Yes	Yes
Week FE		Yes	Yes	Yes	Yes
Observations		156,493	156,493	156,493	156,493
R-squared		0.99	0.99		
Number of groups				4	4

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses;
(3) and (4) show multilevel estimates.
*** p<0.01, ** p<0.05, * p<0.1

Table A.9: The effect of information on Behind the Brands total score on ranked companies' market shares (Above/Below the median score).

	(1)	(2)	(3)	(4)
Variables	Mkt shares	Mkt shares	Mkt shares	Mkt shares

Treat*Above the median	0.0125***	0.0150***	0.0125**	0.0150***
	(0.00350)	(0.00108)	(0.00496)	(0.00107)
Above the median	1.049***		1.049***	
	(0.00935)		(0.00873)	
Company/Store FE	No	Yes	No	Yes
Store FE	Yes	No	Yes	No
Week FE	Yes	Yes	Yes	Yes
Observations	16,287	16,287	16,287	16,287
R-squared	0.503	0.977		
Number of groups			4	4

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table A.10: The Behind the Brands scorecard without the self-regarding domains (Climate and Transparency).

	Land	Women	Farmers	Workers	Water	TOTAL
Unilever	7	6	8	8	7	36
Nestlé	8	5	7	6	7	33
Coca Cola	8	6	3	6	6	29
Kellogg's	5	6	5	3	5	24
Mars	4	5	5	4	4	22
PepsiCo	7	4	3	3	5	22
Mondelez	4	6	4	4	2	20
General Mills	2	3	3	3	6	17
ABF	5	3	3	4	3	18
Danone	2	2	3	3	4	14

Table A.11: The effect of information on Behind the Brands total score on ranked companies' market shares (excluding climate and transparency).

Variables	(1) Mkt shares	(2) Mkt shares	(3) Mkt shares	(4) Mkt shares
Totalscore*Treatment	0.000744***	0.000877***	0.000744**	0.000877***
	(0.000208)	($6.08e^{-05}$)	(0.000291)	($5.92e^{-05}$)
Totalscore	0.0650***		0.0650***	
	(0.000745)		(0.000598)	
Company/Store FE	No	Yes	No	Yes
Store FE	Yes	No	Yes	No
Week FE	Yes	Yes	Yes	Yes
Observations	16,287	16,287	16,287	16,287
R-squared	0.448	0.977		
Number of groups			4	4

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table A.12: The effect of information on Behind the Brands total score on ranked companies' market shares (including after treatment effects).

Variables	(1) Mkt shares	(2) (3) Mkt shares	(4) Mkt shares	
Totalscore*Treatment	0.00152	0.00286***	0.00152	0.00286***
	(0.00133)	(0.000207)	(0.00107)	(0.000250)
DpostTreatment	0.155	0.0955***	0.155**	0.0955***
	(0.103)	(0.0125)	(0.0754)	(0.0154)
Totalscore*Post treatment	-0.00147	0.00238***	-0.00147	0.00238***
	(0.00148)	(0.000281)	(0.00124)	(0.000355)
Company/Store FE	No	Yes	No	Yes
Store FE	Yes	No	Yes	No
Week FE	Yes	Yes	Yes	Yes
Observations	16,287	16,287		
R-squared	0.449	0.977		
Number of groups			4	4

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses;
(3) and (4) show multilevel estimates.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table A.13: The effect of information on Behind the Brands total score on ranked companies' market shares.

Variables	Bootstrap (1) Mkt shares	Bootstrap (2) Mkt shares	ML (3) Mkt shares	ML (4) Mkt shares
Treat*Totalscore	0.000563**	0.000526***	0.000563	0.000526***
	(0.000269)	($7.23e^{-05}$)	(0.000357)	($7.28e^{-05}$)
Treat*Totalscore*Price	$-2.65e^{-05}$	$3.14e^{-05}$	$-2.65e^{-05}$	$3.14e^{-05}$
	($7.85e^{-05}$)	($2.58e^{-05}$)	(0.000133)	($2.72e^{-05}$)
Totalscore	0.0453***		0.0453***	
	(0.00113)		(0.000966)	
Totalscore*Price	0.00218***	-7.40e-05	0.00218***	$-7.40e^{-05}$
	(0.000507)	($6.84e^{-05}$)	(0.000423)	($9.26e^{-05}$)
Company/Store FE	No	Yes	No	Yes
Store FE	Yes	No	Yes	No
Week FE	Yes	Yes	Yes	
Price	Yes	Yes	Yes	Yes
Observations	16,287	16,287	16,287	16,287
No. of groups			4	4
R-squared	0.450	0.977		

(1) and (2) show OLS with bootstrapped standard errors with 491 replications in parentheses; (3) and (4) show multilevel estimates.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

B   Appendix. Cluster refinement

Our experiment took place in four stores that can be seen as clusters. However, standard econometric procedures rely on asymptotic properties which do not hold with very few clusters, as in our case. In section 4.2 we have adopted a multi-level and a bootstrap approach to show how two different methodologies lead similar results. In this section we perform a cluster analysis with the use of clusters refinement and we show that we are able to replicate our results as far as the number of clusters grows. In favour of the need of a more refined clustering consider that product level dynamics are the most important drivers of sales per day (more than store effects) (*i.e.*, temperature and advertising campaigns creating taste shocks are all factors producing stronger correlation within than across product classes, with product dimension being therefore much more relevant than the store effect). Hence it is reasonable to assume that correlation within product type is stronger than between products. If the role of clustering standard errors is that of taking into account the fact that correlation within groups is stronger than across groups across the relevant discriminating dimensions, the product dimension is the most relevant to be taken into account. Hence cluster refinement considering not only store but also product level therefore makes sense and seems more accurate than just clustering standard errors at store level.

Table B.1 shows our benchmark estimates with both OLS and Wild Cluster Bootstrap, with standard errors clustered at store level. While Wild Cluster Bootstrap is particularly suited when the number of clusters is small (Cameron et al., 2008), our estimates do not show significant changes, even though standard errors decrease with the Wild Bootstrap approach.

In Table B.2 we perform OLS estimates with refined clusters. Columns 1 and 2 consider clusters at store/week/brand level and columns 3 and 4 consider clusters at store/week/brand/class of product level. Different refinements do not lead to different results in terms of significance, with the exception of the treatment effect on Mondelez company being significant with more refined clusters. Also, these results are consistent with our bootstrap and multilevel estimates shown in section 4.2.

Table B.1: The effect of information on Behind the Brands scorecard poster on companies' market shares, with two different econometric models.

Variables	OLS (1) Mkt shares	OLS (2) Mkt shares	W-Bootstrap (3) Mkt shares	W-Bootstrap (4) Mkt shares
Unilever*Treat	0.0614	0.0614	0.0614	0.0614
	(0.114)	(0.114)	(0.0906)	(0.0906)
Nestlé*Treat	-0.00120	-0.00120	-0.00120	-0.00120
	(0.0988)	(0.0988)	(0.00554)	(0.00554)
Coca Cola*Treat	-0.00323	-0.00323	-0.00323	-0.00323
	(0.139)	(0.139)	(0.0195)	(0.0194)
Kellogg's*Treat	0.0180	0.0180	0.0180	0.0180
	(0.0753)	(0.0753)	(0.0599)	(0.0599)
Mars*Treat	0.0783	0.0783	0.0783	0.0783
	(0.0941)	(0.0941)	(0.116)	(0.116)
PepsiCo*Treat	-0.0710	-0.0710	-0.0710	-0.0710
	(0.178)	(0.178)	(0.158)	(0.158)
Mondelez*Treat	-0.00777	-0.00777	-0.00777	-0.00777
	(0.0179)	(0.0179)	(0.0193)	(0.0193)
ABF*Treat	0.0323	0.0323	0.0323	0.0323
	(0.0787)	(0.0787)	(0.118)	(0.118)
Danone*Treat	-0.0219	-0.0219	-0.0219	-0.0219
	(0.0233)	(0.0233)	(0.0235)	(0.0235)
Coop*Treat		-0.00137		-0.00137
		(0.00155)		(0.00203)

Variables	(1)	(2)	(3)	(4)
Barilla*Treat		-0.00138		-0.00138
		(0.00155)		(0.00159)
Lavazza*Treat		-0.00156		-0.00156
		(0.00155)		(0.00180)
Mukki*Treat		-0.00126		-0.00126
		(0.00159)		(0.00187)
Sammontana*Treat		-0.00128		-0.00128
		(0.00154)		(0.00148)
Ferrero*Treat		-0.00137		-0.00137
		(0.00155)		(0.00158)
Company/Store FE	Yes	Yes	Yes	Yes
Week FE	Yes	Yes	Yes	Yes
Price	Yes	Yes	Yes	Yes
Observations	156,493	156,493	156,493	156,493
R-squared	0.999	0.999	0.999	0.999
No. of clusters	4	4	4	4

(1) and (2) show OLS with clustered standard errors at store level in parenthesis; (3) and (4) show Wild Cluster Bootstrap with store clusters in parenthesis.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table B.2: The effect of information on Behind the Brands scorecard poster on companies' market shares, with different clusters.

Variables	Cluster 1 (1) Mkt shares	Cluster 1 (2) Mkt shares	Cluster 2 (3) Mkt shares	Cluster 2 (4) Mkt shares
Unilever*Treat	0.0614***	0.0614***	0.0614***	0.0614***
	(0.0101)	(0.0101)	(0.00430)	(0.00430)
Coca Cola*Treat	-0.00120	-0.00120	-0.00120	-0.00120
	(0.0118)	(0.0118)	(0.00479)	(0.00479)
Nestlé*Treat	-0.00323	-0.00323	-0.00323	-0.00323
	(0.0165)	(0.0165)	(0.0165)	(0.0165)
Kellogg's*Treat	0.0180	0.0180	0.0180*	0.0180*
	(0.0137)	(0.0137)	(0.0103)	(0.0103)
Mars*Treat	0.0783***	0.0783***	0.0783***	0.0783***
	(0.00816)	(0.00816)	(0.00749)	(0.00749)
PepsiCo*Treat	-0.0710	-0.0710	-0.0710*	-0.0710*
	(0.0482)	(0.0482)	(0.0429)	(0.0429)
Mondelez*Treat	-0.00777	-0.00777	-0.00777**	-0.00777**
	(0.00565)	(0.00565)	(0.00354)	(0.00354)
ABF*Treat	0.0323	0.0323	0.0323	0.0323
	(0.0405)	(0.0405)	(0.0208)	(0.0208)
Danone*Treat	-0.0219***	-0.0219***	-0.0219***	-0.0219***
	(0.00788)	(0.00788)	(0.00421)	(0.00421)
Coop*Treat		-0.00137***		-0.00137***
		(0.000499)		(5.03e-05)
Barilla*Treat		-0.00138***		-0.00138***
		(0.000461)		(0.000138)
Lavazza*Treat		-0.00156***		-0.00156***
		(0.000380)		(0.000263)
Mukki*Treat		-0.00126		-0.00126***
		(0.000771)		(0.000175)
Sammontana*Treat		-0.00128***		-0.00128***
		(0.000375)		(0.000257)
Ferrero*Treat		-0.00137***		-0.00137***
		(0.000277)		(0.000174)
Price	Yes	Yes	Yes	Yes
Company/Store FE	Yes	Yes	Yes	Yes
Week FE	Yes	Yes	Yes	Yes

Joint significance of

	(1)	(2)	(3)	(4)
ranked brands F(9 ; 31,315/84,673)	15.90 (0.000)	15.90 (0.000)	39.29 (0.000)	39.29 (0.000)
non-ranked brands F(6 ; 31,315/84,673)		9.94 (0.000)		165.31 (0.000)
top 5 ranked brands F(5 ; 31,315/84,673)	26.13 (0.000)	26.13 (0.000)	63.32 (0.000)	63.32 (0.000)
bottom 4 ranked brands F(4;31,315/84,673)	3.10 (0.015)	3.10 (0.015)	9.26 (0.000)	9.26 (0.000)
Observations	156,493	156,493	156,493	156,493
R-squared	0.999	0.999	0.999	0.999
No. of clusters	31,316	31,316	84,674	84,674

(1) and (2) show OLS with clustered standard errors at store/week/brand level in parenthesis; (3) and (4) show OLS with clustered standard errors at store/week/brand/class of product level in parenthesis.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$